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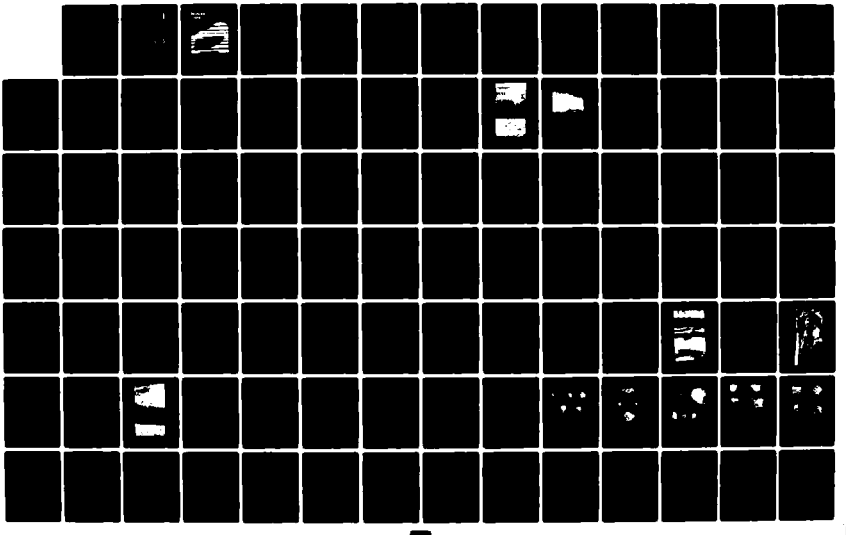

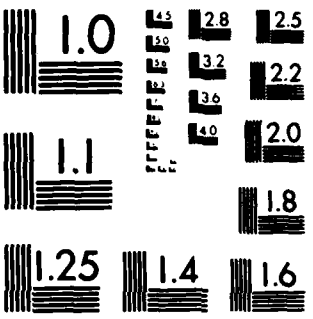

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Nimrod Lake

An Archeological Survey of a Reservoir Drawdown

by

Thomas L. Lorrentzen

Final Report Submitted to Little Rock District, U.S. Army Corps of Engineers, Under Contract No. DACW 66-78-M-1252

Arkansas Archeological Survey Research Report No. 32

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20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)*

A description of archeology sites visited and/or relocated during the lake drawdown; archaic through historic.

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SECURITY CLASSIFICATION OF THIS PAGE *(When Data Entered)*

NIMROD LAKE:

AN ARCHEOLOGICAL SURVEY OF A RESERVOIR DRAWDOWN

by

Thomas L. Lea erman

Arkansas Archeological Survey
Fayetteville, Arkansas 72701
Project Number 292

Report submitted to the Little Rock District, U.S. Army Corps of Engineers
DACW 03-78-M-1252

Below is an errata sheet for the site size and dispersion data presented in this report on the Nimrod Lake survey. Since the completion of the Nimrod project the Registrar's Office of the Arkansas Archeological Survey has instituted a comprehensive records review procedure for the Survey site forms. Under this procedure, field project records are reviewed by the Registrar for accuracy and consistency. Although current projects receive this detailed examination such review procedures were not in effect during the Nimrod fieldwork. For the Nimrod project therefore, such a review has been "after the fact." A careful examination of the listing will indicate that the actual degree of discrepancies may often be limited. It is essential, however, that scientific documentation be accurate and consistent and this review data are presented with this goal.

Site No.	Site Form	Field Notes	Report Narrative	Report Table
3YE70	20,000 sq. mi	not given	20,000 sq. m	33,250 m^2
3YE71	120 x 20 m	110 x 20 m?	120 x 20 m	2,400 m^2
3YE72	30 m	not given	extends 30 m.	30 m^2
3YE73	50 m	100 m	extends 50 m.	100 m^2
3YE74	25 m long	not given	extends 25 m.	10 m^2
3YE75	25 m long	10 m	extends 25 .	10 m^2
3YE76	not given	10 m	not given	200 m^2
3YE77	not given	10 m	not given	20 m^2
3YE78	not given	10 m	not given	250 m^2
3YE79	along 100 m area	unknown	linearly 100 m	5,000 m^2
3YE80	25 m	not given	linearly 25 m	25 m^2
3YE81	not given	not given	not given	unknown m^2
3YE82	not given	not given	not given	10,000 m^2
3YE83	10 m	not given	linearly 10 m	100 m^2
3YE84	25 m long	not given	extends 25 m	25 m^2
3YE85	not given	not given	not given	unknown m^2
3YE86	15 m long	not given	extends 15 m	15 m^2
3YE87	15 m long	unknown	extends 15 m	15 m^2
3YE88	100 m long	100 m long	extends 100 m	100 m^2
3YE89	125 x 75 m	125 x 75 m	125 x m 75 m	9,400 m^2
3YE90	75-100 x 20 m	75-100 x 100m	100 x 10 m	900 m^2
3YE91	not given	not given	not given	3,100 m^2
3YE92	not given	not given	not given	unknown m^2
3YE93	100 sq. m	10 m sq.	100 sq. m	20 m^2
3YE94	15 m long	not given	15 m in length	30 m^2
3YE95	25 m	25 m long	extends 25 m	25 m^2
3YE96	not given	not given	not given	unknown m^2
3YE97	not given	25 m exposed	not given	25 m^2
3YE98	25 m long	not given	extends 25 m	100 m^2
3YE99	25 x 75 m	75 x 25 m	25 x 75 m	75 m^2
3YE100	50 m long	50 m along bank	extends 50 m	100 m^2
3YE101	20 x 3 m	20 x 3 m	20 x 3 m	60 m^2
3YE102	3 m long	not given	3 m long	2 m^2
3YE103	10 m long	10 m x 2 ft(?)	10 m long	70 m^2
3YE104	10 x 2 m	10 x 2 m	10 x m 2	20 m^2
3YE105	12 ft.	12 ft.	12 ft.	12 m^2
3YE106	10 x 4 m	10 x 4 m	10 x 4 m	40 m^2
3YE107	5 x 5 m	5 x 5 m	5 x 5 m	10 m^2
3YE108	not given	175 x 25 m	175 x 25 m	3,755 m^2
3YE109	75-100 x 10 m	75-100 m	75-100 x 10 m	1,000 m^2
3YE110	30 x 30 m	30 x 30 m	30 x 30 m	900 m^2
3YE111	50 x 50 m	maybe 50 x 50 m	50 x 50 m	2,500 m^2
3YE112	est. 100x100m	unknown	100 x 100 m	unknown
3YE113	not given	not given	not given	unknown m^2
3YE114	20 x 20 m	20 x 20 m	not given	400 m^2
3YE115	25 x 15 m	not given	25 x 15 m	375 m^2
3YE116	10 x 10 m	10 x 10 m	10 x 10 m	100 m^2
3YE117	75 x 50 m	75 x 50 m	75 x 50 m	unknown
3YE118	8 x 8 m	8 x 8 m	8 x 8 m	--
3YE119	4 x 10 m	4 x 10 m	4 x 10 m	40 m^2
3YE120	4 x 4 m	4 x 4 m	4 x 4 m	16 m^2
3YE121	10 m long	not given	linearly 10 m	10 m^2
3YE122	50 m along bank	50 m long	50 m long	50 m^2
3YE123	30 m	not given	linear 30 m	60 m^2
3YE124	50-75 m long	not given	50-70 m long	7,500 m^2
3YE125	not given	not given	unknown	unknown m^2
3YE126	15 x 15 m	not given	15 x 15 m	250 m^2
3YE127	25 x 1000 m	not given	25 x 1000 m	34,375 m^2
3YE128	15 x 30 m	not given	15 x 35 m	625 m^2
3YE129	75 x 50 m	50 x 75 m	75 x 50 m	3,750 m^2
3YE130	10 m area	10 m area	10 m area	20 m^2
3YE131	not given	not given	not given	--
3YE132	30 m area	30 m area	30 m area	30 m^2
3YE133	25 m	25 m area	25 m	50 m^2
3YE134	200 m	200 m	ca. 200 m	200 m^2
3YE135	20 x 10 m	not given	20 x 10 m	200 m^2
3YE136	150 x 50 m	150 x 50 m	150 x 50 m	7,500 m^2
3YE137	5 areas	5 areas	not given	1,500 m^2
3YE138	3 areas	3 areas	not given	3,500 m^2
3YE139	4 areas	4 areas	not given	1,000 m
3YE140	10 x 20 m	10 x 20 m	10 x 20 m	100 m^2
3YE141	20 x 50 m	20 x 50 m	20 x 50 m	1,000 m^2
3YE142	10 x 10 m	10 x 10 m	10 x 10 m	100 m^2
3YE143	50 x 50 m	not given	50 x 50 m	2,750 m^2
3YE144	not given	not given	not given	200 m^2
3YR145	2 areas(15x15m)	2 areas (15x15m)	2 areas(15x15m)	100 m^2
3YE146	10 x 10 m	10 x 10 m	10 x 10 m	100 m^2
3YE147	15 x 15 m	not given	15 x 15 m	800 m^2
3YE148	3 areas	3 areas	3 areas	3,300 m^2
3YE149	20 x 20 m	20 x 10 m	20 x 20 m	200 m^2
3YE150	50 x 10 m	50 x 10 m	50 x 10 m	500 m^2
3YE151	20 x 70 m	70 x 20 m	75 x 20 m	1,000 m^2
3YE152	20 x 20 m	20 x 20 m	20 x 20 m	400 m^2
3YE153	40 x 20 m	40 x 20 m	40 x 20 m	800 m^2
3YE154	10 x 10 m	10 x 10 m	10 x 10 m	100 m^2
3YE155	20 x 30 m	20 x 30 m	20 x 30 m	600 m^2
3YE156	60 x 30 m	30 x 60 m	50 x 30 m	1,800 m^2
3YE157	40 x 10 m	40 x 10 m	40 x 10 m	400 m^2
3YE158	40 x 35 m	45 x 35 m	40 x 35 m	7,550 m^2
3YE159	55 x 30 m	--	55 x 30 m	1,000 m
3YE160	5 x 5 m	5 x 5 m	5 x 5 m	50 m^2
3YE161	10 x 5 m	10 x 5 m	10 x 5 m	50 m^2
3YE162	40 x 10 m	40 x 10 m	40 x 10 m	460 m^2
3YE163	45 x 10 m	45 x 10 m	45 x 10 m	450 m^2
3YE164	45 x 20 m	45 x 20 m	45 x 20 m	900 m^2
3YE165	160 x 10 m	100 x 20 m	160 x 10 m	2,600 m^2
3YE166	60 x 20 m	60 x 10 m	60 x 20 m	150 m
3YE167	40 x 10 m	not given	40 x 10 m	unknown
3YE168	20 x 3 m	20 x 3 m	20 x 3 m	70 m^2
3YE169	not given	not given	not given	1 m

Site No.	Site Form	Field Notes	Report Narrative	Report Table
3YE170	25 x 10 m	25 x 10 m	25 x 10 m	250 m^2
3YE171	4 x 1 m	12 ft x 1 ft	4 x 1 m	4 m^2
3YE172	50 x 40 m	50 x 40 m	50 x 40 m	2,000 m^2
3YE173	not given	not given	not given	200 m^2
3YE174	75 x 40 m	40 x 40 m(?)	15 x 40 m	420 m^2
3YE175	50 x 50 m	50 x 50 m	50 x 50 m	2,500 m^2
3YE176	15 x 10 m	15 x 10 m	15 x 10 m	100 m^2
3YE177	30 x 30 m	40 x 40 m	30 x 30 m	800 m^2
3YE178	10 x 20 m	10 x 20 m	10 x 20 m	200 m^2
3YE179	70 x 20 m	70 x 20 m	70 x 20 m	270 m
3YE180	not given	10 x 10 m	not given	600 m^2
3YE181	10 x 20 m	20 x 10 m	10 x 20 m	200 m^2
3YE182	30 x 15 m	30 x 15 m	30 x 15 m	450 m^2
3YE183	70 x 10 m	70 x 10 m	70 x 10 m	700 m^2
3YE184	75 x 20 m	75 x 20 m	75 x 20 m	1,500 m^2
3YE185	50 x 15 m	50 x 15 m	60 x 15 m	750 m^2
3YE186	15 x 10 m	15 yd x 10 yd	10 x 15 m	150 m^2
3YE187	40 x 30 m	40 x 30 m	40 x 30 m	1,200 m^2
3YE188	20 x 20 m	20 x 20 m	20 x 20 m	450 m^2
3YE189	15 x 15 m	15 x 15 m	15 x 15 m	1 m^2
3YE190	160 x 30 m	125 x 100 m(?)	160 x 30 m	2,225 m^2
3YE191	not given	35 x 10 m	not given	300 m^2
3YE192	15 x 10 m	15 x 10 m	15 x 10 m	150 m^2
3YE193	65 x 55 m	65 x 55 m	65 x 55 m	320 m^2
3YE194	550 sq. m	3 areas	550 sq. m	225 m^2
3YE195	35 x 10 m	35 x 10 m	35 x 10 m	300 m^2
3YE196	30 x 20 m	30 x 20 m	30 x 20 m	600 m^2
3YE197	10 m diameter	10 x 10 m	10 m diameter	80 m^2
3YE198	5 x 2 m	5 x 2 m	30 x 15 m	450 m^2
3YE199	20 x 15 m	25 x 15 m	25 x 15 m	450 m
3YE200	25 x 15 m	25 x 15 m	25 x 15 m	450 m^2
3YE201	75 x 20 m	75 x 20 m	75 x 20 m	1,875 m^2
3YE202	60 x 20 m	60 x 20 m	60 x q0 m	1,200 m^2
3YE203	25 x 15 m	25 x 15 m	25 x 15 m	375 m^2
3YE204	3 areas	3 areas	2,650 sq. m	2,400 m^2
3YE205	40 x 30 m	40 x 30 m	40 x 30 m	800 m^2
3YE206	50 x 12 m	50 x 12 m	50 x 12 m	600 m^2
3YE207	50 x 5 m	50 x 5 m	50 x 5 m	250 m^2
3YE208	30 x 20 m	30 x 20 m	30 x 20 m	900 m^2
3YE209	100 x 25 m	150 x 20 m	100 x 25 m	800 m
3YE210	400 x 100 m	400 x 100 m	400 x 100 m	41,000 m^2
3YE211	60 x 30 m	60 x 30 m	not given	1,800 m^2
3YE212	40 x 10 m	40 x 10 m	40 x 10 m	400 m^2
3YE213	500 x 10-40m	500 x20-30 m	500 x ? m	45,000 m^2
3YE214	5 x 50 m	not given	5 x 50 m	500 m^2
3YE215	2 areas	3 areas	150 x 40 m	300 m^2
3YE216	200 sq. m	10 x 100 m	200 sq. m	400 m^2
3YE217	30 x 15 m	30 x 15 m	30 x 15 m	450 m^2
3YE218	20 x 15 m	20 x 15 m	25 x 15 m	300 m

Site No.	Site Form	Field Notes	Report Narrative	Report Table
3PE48	40 x 40 m	40 x 40 m	40 x 40 m	1,000 m^2
3PE49	100 x 20 m	2 areas	100 x 20 m	2,300 m
3PE50	120 x 30 m	120 x 30-50 m	120 x 30 m	5,200 m^2
3PE51	25 x 20 m	25 x 20 m	25 x 20 m	400 m
3PE52	2 lithics	2 ft. apart	2 ft. apart	1
3PE53	15 x 15 m	15 x 15 m	15 x 15 m	225 m^2
3PE54	40 x 30 m	40 x 30 m	40 x 30 m	225 m^2
3PE55	35 x 15 m	35 x 15 m	35 x 15 m	525 m^2
3PE56	7,000 sq. m	6 areas	7,000 sq. m	8,000 m^2
3PE57	100 x 10 m	100 x 10 m	100 x 10 m	4,000 m^2
3PE58	100 m	100 x 10 m	100 m wide	1,000 m^2
3PE59	50 x 30 m	50 x 30 m	50 x 30 m	1,500 m
3PE60	100 x 80 m	2 areas	100 x 80 m	4,500 m^2
3PE61	40 x 40 m	not given	40 x 40 m	1,500 m^2
3PE62	not given	20 x 20 m	not given	400 m^2
3PE63	20 x 20 m	20 x 20 m	20 x 20 m	400 m^2
3PE64	20 x 20 m	25 x 25 m	20 x 20 m	625 m^2
3PE65	75 x 50 m	75 x 50 m	50-75 m x 20 m	1,500 m^2
3PE66	20 x 20 m	20 x 20 m	20 x 20 m	400 m^2
3PE67	50 x 50 m	50 x 50 m	50 x 50 m	2,500 m^2
3PE68	20 x 15 m	3 areas	20 x 15 m	300 m^2
3PE69	70 x 30 m	70 x 30 m	70 x 30 m	2,100 m
3PE70	50 x 40 m	50 x 30 m	50 x 40 m	1,500 m^2
3PE71	20 x 50 m	20 x 50 m	20 x 50 m	1,000 m^2
3PE72	30 x 15 m	30 x 15 m	30 x 15 m	450 m^2
3PE73	30 x 15 m	30 x 15 m	30 x 15 m	450 m^2
3PE74	30 x 10 m	30 x 10 m	30 x 10 m	300 m^2
3PE75	525 sq. m	25 x 15 m	525 sq. m	525 m^2
3PE76	50 x 10 m	50 x 10 m	50 x 10 m	500 m^2
3PE77	30 x 50 m	30 x 50 m	30 x 50 m	1,500 m^2
3PE78	20 x 30 m	20 x 30 m	20 x 30 m	600 m^2
3PE79	25 x 15 m	not given	25 x 15 m	375 m
3PE80	15 x 5 m	15 x 5 m	15 x 5 m	75 m^2
3PE81	20 x 40 m	20 x 20 m	20 x 40 m	400 m^2
3PE82	35 x 10 m	35 x 10 m	35 x 10 m	350 m^2
3PE83	100 x 25 m	100 x 25 m	100 x 25 m	2,500 m^2
3PE84	20 x 10 m	20 x 20 m	20 x 10 m	200 m^2
3PE85	not given	not given	not given	2,500 m

ABSTRACT

From October to December 1978, the Arkansas Archeological Survey conducted a cultural resource survey at Nimrod Lake. In general, few constraints hampered the completion of the survey. Accessibility to the lake and surface visibility at the lake were minor problems at some loci, while the major factors limiting the recovery of an optimal archeological sample relate to the site collection activities of local inhabitants.

One hundred and eighty-seven new archeological sites were located during the survey. Collections ranging from Archaic through Historic periods were made on 176 sites. The new sites were functionally interpreted as base camps, special activity sites, or isolated finds; over half were base camps. The placement of sites was tabulated in association with three environmental variables in order to better detect trends of settlement in this portion of the Fourche La Fave drainage.

Individual site significance could not be assessed within the scope of this study, but the survey area as a unit is thought to be quite significant. Further work is recommended at Nimrod, including survey, initial testing, and mitigation of adverse impacts on cultural resources. Further monitoring of high erosion areas is also recommended. Finally, suggestions are offered to help prevent the unauthorized collecting of sites in the future.

MANAGEMENT SUMMARY

In October 1978, the Little Rock District U.S. Army Corps of Engineers (COE) asked the Arkansas Archeological Survey (AAS) to perform an archeological reconnaissance survey of portions of Nimrod Reservoir exposed by a lake drawdown planned for September through December 1978. The Scope of Work of the contract (No. DACW 03-78-M-1251) between the COE and the AAS required a cultural resource survey of all areas exposed by the drawdown, a descriptive paragraph of each site, recommendations for additional survey and data recovery, assessment of project effects upon the sites, and recommendations for site preservation and protection.

Constraints on the Study

Access to some parts of the survey area, i.e., center portions of streambeds and stretches of river channel at the western end of the reservoir, was hampered by high ground saturation and variable stream heights. Overall surface visibility was good except for a few extremely muddy areas and locations where cracked sandstone and other rock debris were so dense that it obscured surface visibility. Difficulty was also encountered in trying to pinpoint sites accurately on USGS 7½ min. topographic maps.

Unauthorized site collection by the public is judged as constituting a major constraint against the recovery of an optimal representative sample. Collectors were repeatedly seen throughout the field study.

Finally time and budget constraints limited the intensity of individual site evaluation either by more rigorous survey methods or by testing.

Investigative Results

During the survey of Nimrod Lake 187 archeological sites were recorded. Each of the sites contained prehistoric components and 18 contained an additional historic component. The temporal or cultural affiliations of these resources ranged from the early Archaic period up to and including twentieth century settlement. Most sites (106 = 57%) were functionally interpreted as base camps while 54 (29%) were assigned special activity functions; 8 (4%) were isolated finds and 19 (10%) were of unknown function.

The placement of sites was tabulated in association with three environmental variables in order to better detect settlement trends.

Significance of the Resources and Recommendations

Because time constraints make it impossible to adequately assess the significance of individual sites recorded during the survey, an areal approach was used in discussing the significance of the resources at Nimrod. The survey unit is seen as potentially contributing extensive data significant to the study of other riverine environments and of the northern Ouachita region.

Since no subsurface testing was performed, and a great number of sites are considered worthy of further investigation, an

intensive testing program is recommended for the next drawdown. This should be followed by mitigation, in the form of more intensive testing and/or excavation where significant cultural resources face continued inundation.

In addition to a testing program, a more intensive survey including the whole Nimrod project area is recommended. The purpose of this survey would be a more complete assessment of all resources under COE jurisdiction and especially in areas proposed for development of recreational facilities. A second goal would be to obtain samples which crosscut all environmental zones of the region, in order to assess aboriginal settlement patterns and resource utilization within the northern Ouachita area.

It is recommended that areas with erosional tendencies be monitored during future drawdowns or at low water levels to assess the degree of ongoing site destruction. The careful control of pool fluctuations could possibly decrease the extent of future erosion. Finally, it is highly recommended that more effective measures be taken in dissuading the public from the unauthorized collection of archeological sites on this COE property. Two suggestions offered with respect to that recommendation are (1) education of the public and (2) strict enforcement of laws pertaining to cultural resource protection especially in the early stages of drawdown.

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CHAPTER 1

INTRODUCTION TO THE NIMROD LAKE ARCHEOLOGICAL RECONNAISSANCE PROJECT

In October 1978, the Little Rock District, U. S. Army Corps of Engineers (COE) requested that the Arkansas Archeological Survey conduct an archeological reconnaissance of Nimrod Lake in Yell and Perry counties, Arkansas. Construction of the lake was completed in 1942 prior to the establishment of federal legislation pertaining to cultural resources management; consequently archeological survey or assessment had not been performed in this area prior to inundation. A drawdown of the lake planned for September through December 1978 provided an opportunity for an assessment of a portion of the cultural resources submerged under the waters of the lake.

The Nimrod dam and reservoir project was designed for flood protection along the Fourche La Fave River below Nimrod, Arkansas. It is but one unit of a comprehensive reservoir plan for flood control on the Arkansas and Mississippi rivers initiated under the Flood Control Act of 1938. Besides its role in flood prevention, Nimrod Lake serves as a recreational facility for swimmers, boaters, tourists, hunters, and fishermen. The Arkansas Game and Fish Commission also controls certain areas of the lake for wildlife management.

Lake Nimrod is normally operated at a conservation pool level of 342 feet above mean sea level (AMSL), encompassing an area of

3,550 acres, but during rainy months may swell to a flood pool level of 373 feet AMSL submerging 18,300 acres. The fall drawdown brought the conservation pool level to 330 feet AMSL, a vertical drop of 12 feet. This lowering of pool elevation exposed an area estimated to be between 2,500 and 3,000 acres.

The drawdown proceeded in stages as follows:

5 September 1978, pool level 342 feet
1 October 1978, pool level 332 feet, 2,570 acres exposed
1 December 1978, pool level 330 feet, 2,840 acres exposed
1 January 1979, refill as rain permits

The COE Scope of Work (Appendix A) required the Arkansas Archeological Survey to "conduct the cultural resource survey with limited testing on Nimrod Lake. . .of all exposed areas of the lake under Federal ownership." In addition, the draft report was to present the following information:

a) professionally acceptable methodology in collecting of cultural resources data (Chapter 4)

b) significance of each site with National Register nomination forms completed if appropriate (no sites nominated at this time)

c) a descriptive paragraph of each site and potential for additional scientific data (Chapter 6; Appendix D)

d) recommendations for additional survey and data recovery if appropriate (Chapter 7)

e) effects of project operations on the sites (Chapter 5)

f) recommendations for site preservation and protection (Chapter 7).

Because of the late notice of the drawdown, the limited period of exposure of the survey area, and COE fiscal constraints, the

Arkansas Archeological Survey Proposal (Appendix B) stipulated that the "limited testing" or subsurface testing to determine the significance of each site (b, above) could not be performed on every site which warranted it. The Purchase Order COE Number DACW 03-78-M-1252 was dated September 29, 1978.

The Arkansas Archeological Survey field crew, consisting of a project archeologist and one field assistant, began the reconnaissance on October 16, 1978 and completed it on December 13, 1978. Due to the large number of archeological resources recorded during the fieldwork, no subsurface testing was possible within the time constraints. The laboratory schedule was extended until the preliminary processing of the recovered artifacts was completed in March, 1979. A proposal by the Arkansas Archeological Survey for further processing of the materials (Appendix C) was submitted to and rejected by the COE in February 1979.

The archeological data recorded during the project will be filed at the Arkansas Archeological Survey's Coordinating Office in Fayetteville and its station at Arkansas Tech University in Russellville. The recovered materials will be deposited at the Arkansas Tech University station in Russellville.

CHAPTER 2

LOCATION AND ENVIRONMENTAL SETTING OF NIMROD LAKE

Nimrod Dam and Reservoir is located on the Fourche La Fave River in the western part of Perry County and eastern portions of Yell County, Arkansas (Figure 1). The dam lies about 29 miles south of Russellville on Highway 7, 8 miles west of Nimrod along Highway 60, and about 60 river miles upstream from the confluence of the Arkansas and Fourche rivers. The entire project area is located in the Ouachita Mountains of west central Arkansas near the northern boundary of the Fourche subdivision of the Ouachita Uplift. The Ouachita National Forest borders the lake to the south.

Geology

Nimrod Lake is within the folded and faulted frontal Ouachita Mountain region. The bedrock beneath the lake is composed principally of valley forming shale and sandstone of the middle Atoka formation of Pennsylvania age. Lower Atoka sandstone and siltstone, with some shale, dominate the more mountainous flanks of anticlines both north and south of the lake. The rocks of the Atoka formation are folded into east-west trending ridges and valleys with the more erosion resistant sandstones forming most ridges and hillslopes while the less resistant shales are generally found in the valleys.

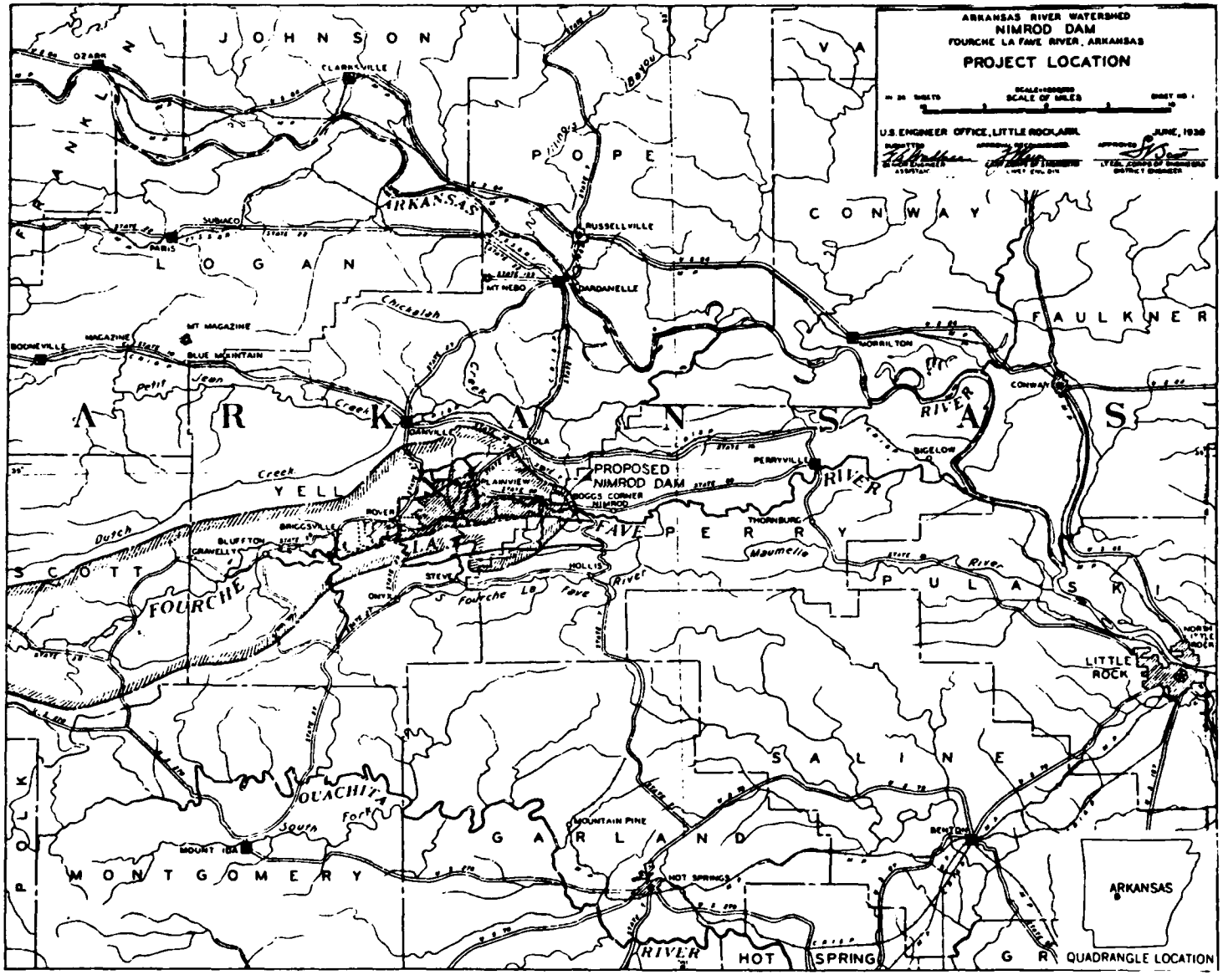

Figure 1. Location of Nimrod Lake within the northern Ouachita region.

NOTE:
Drainage area at Dam Site = 680 sq. mi.

Exposed formations of Atoka sandstone and shales can be readily observed at the boundaries of Nimrod Reservoir. A thin cover of recent age alluvium and rubble overlies many of the slopes and parts of the valley. No large natural landslides have been reported but many slopes are burdened with rock rubble, mostly composed of broken sandstone.

Large numbers of small cracked sandstone fragments in addition to larger boulders were found throughout the exposed areas of Nimrod Lake bottom (Figures 2 and 3). Talus slopes of similar cracked sandstone were also seen by the survey crew (Figure 4). The sandstone found within the middle Atoka formation is noted to be high in iron content and is characterized by colors of red and pink. When such iron-laden fragments are exposed to air, oxidation processes produce darker gray and black colors giving the appearance of stone fragments which have been heated and fractured by fire (Walter Manger, personal communication).

Along fractures and joints resulting from faults running the length of the reservoir, veins of milky quartz are common. Many quartz fragments were recovered from sites located within the survey area. In addition to this quartz, lithic debris other than the local sandstones and shales were also noted. Those particularly relevant to the archeological survey of Nimrod were a variety of novaculites and cherts whose points of origin are unknown. It is likely, however, that the novaculites were gathered from some of

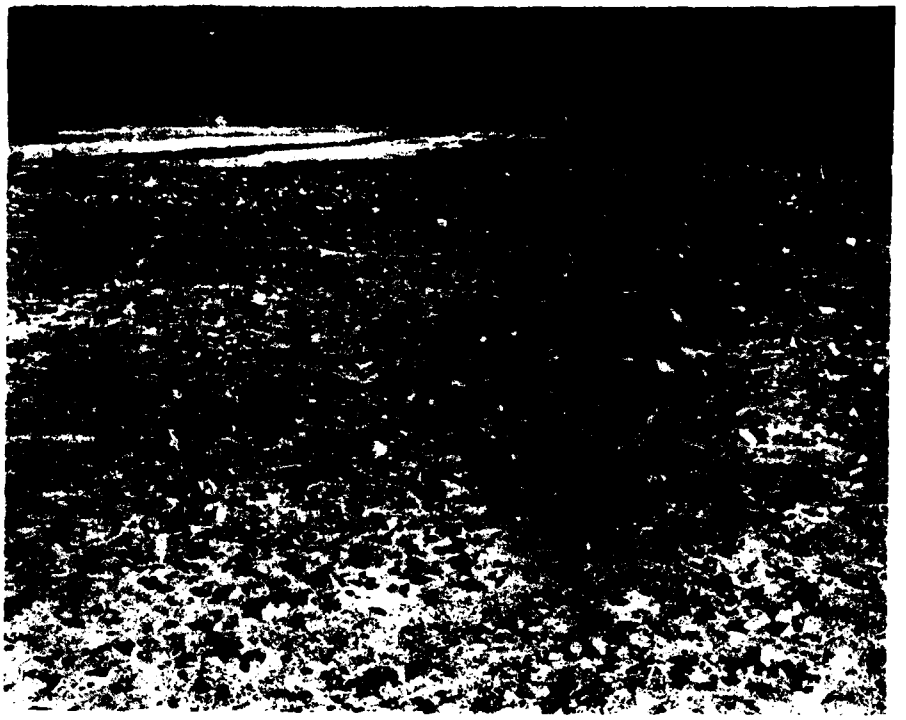

Figure 2. An example of the large number of small cracked sandstone fragments at Nimrod Lake

Figure 3. An example of large boulders of sandstone at Nimrod Lake

Figure 4. A talus slope of cracked sandstone at Nimrod Lake.

the many quarries found in Mississippian and Devonian age formations in the Ouachitas south of Nimrod, the closest formation occurring just north of Jessieville along Highway 7.

Chert sources can be found in Johns Valley shale and Stanley shale with formations just south of Lake Nimrod. A number of waterworn chert nodules with cortical outer surfaces were found within the survey area. These appeared to have been carried into the area by the Fourche La Fave River and probably originated in Johns Valley shale formations near Boles, Arkansas (Charles Stone, personal communication).

Physiography

The general topography of the area surrounding the Nimrod Reservoir is characterized by a series of roughly parallel mountains with flat ridges which are separated by deep narrow valleys. Fourche Mountain, a long east-west trending mountain with flat ridgetops, broken only by a few north-south running streams, borders the entire project area to the south. North of the reservoir are Ola Mountain to the east and Danville Mountain to the west. Both receive their names from their proximity to the respective local communities.

The northern periphery of the lake is indented by numerous coves. The shoreline is heavily eroded resulting in an indented, irregularly broken configuration. The erosional process was highlighted by comparison of on-the-spot observation with the USGS quadrangle maps and the COE Nimrod planning maps. The active erosion of exposed banks at the reservoir edge was frequently observed by the survey crew at Nimrod. These upper banks were remnant terraces leading into moderately sloping hills which border steeper mountains to the north.

The topography of the survey area to the north of the Fourche La Fave River channel was generally flat and unbroken except where cut by intermittent and permanent streams feeding the Fourche. Where these streams crossed the floodplain, they have eroded relatively shallow to sometimes steep cuts with observable stream terraces.

Within the valley floor exposed by the recent drawdown, remnant channel terraces of the Fourche were difficult to detect. These terraces are probably masked by agricultural and the later reservoir construction activities, as well as by the filling in and evening out of the floodplain resulting from 36 years of inundation.

For the most part, the Fourche La Fave River channel runs close to the south edge of the reservoir, along which the shoreline is generally steep and unbroken. There was consequently less exposed area to the south of the channel. However, at several points along the south shoreline between Carter Cove and Carden Point, the river turns northward constructing large river bars of silt and sand which were particularly rich in artifactual debris. Few streams feed the Fourche from the south. Where streams do dissect the south shoreline, however, they generally construct relatively deep cuts with steep slopes and high terraces.

Within the lake bottom to the north and south of the Fourche La Fave, there are three main observable physiographic features: the present floodplain or first terrace of the Fourche, the terraces of streams feeding the Fourche, and the shoreline terrace of the lake at the conservation pool level (second river terrace).

A distinction can be made between areas to the western and eastern ends of the reservoir. West of the Carter Cove area the reservoir boundaries are for the most part confined to the existing river channel although sloughs and backwater areas occur along the

north and south shorelines. East of this zone the reservoir is better characterized by the broad flat floodplain (first terrace) of variable width (Figure 5).

Soils in the Area

The soil associations found at Lake Nimrod reflect the composition and relative weathering potentials of the sandstone and shale bedrock in the vicinity. There is a predominance of silt loams with variable gravel and stone content, and several sandy loams. The soil maps which were used in identifying the soils associated with the project area were drawn before creation of the reservoir (Figure 6; Deeter and Lounsbury 1917; Deeter et al. 1923). Updated versions of these maps are still in process and would lack indentification of soils within the reservoir which are covered at conservation pool level.

The soils observed during the survey of Nimrod Lake include first bottom soils, predominantly silt loams, and second bottom soils, both located on the flood terrace of the Fourche La Fave River, and upland soils. The soils encountered in the survey include the following: Hanceville loam (Hl), Hanceville stoney loam (Hs), Pope silt loam (Ps), Pope fine sandy loam (Pf), Casa fine sandy loam (Cf), Atkins loam (Al), Atkins clay (Ac), Waynesboro loam (Wl), Waynesboro fine sandy loam (Wf), and Conway silt loam (Cl).

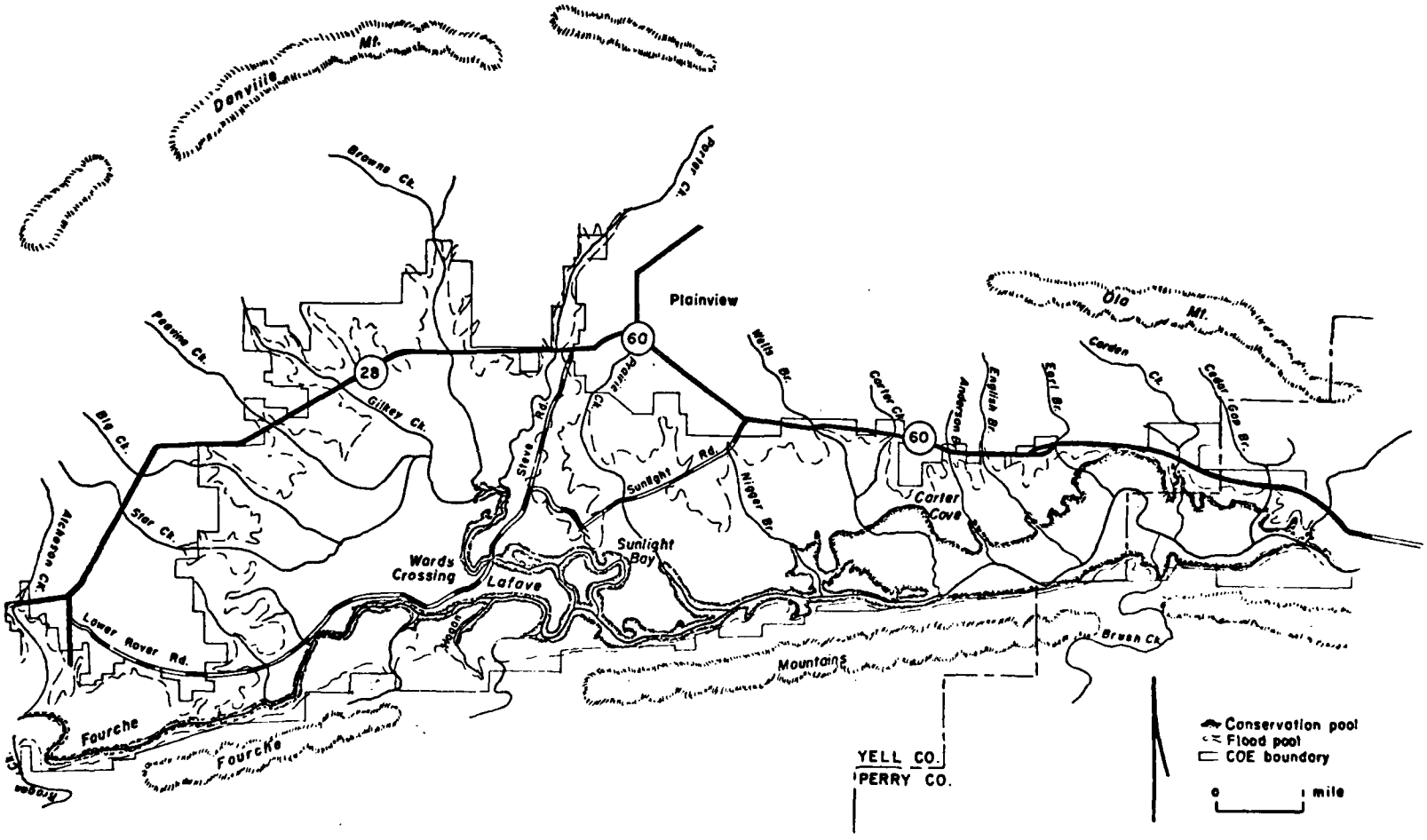

Figure 5. The Nimrod Lake survey area.

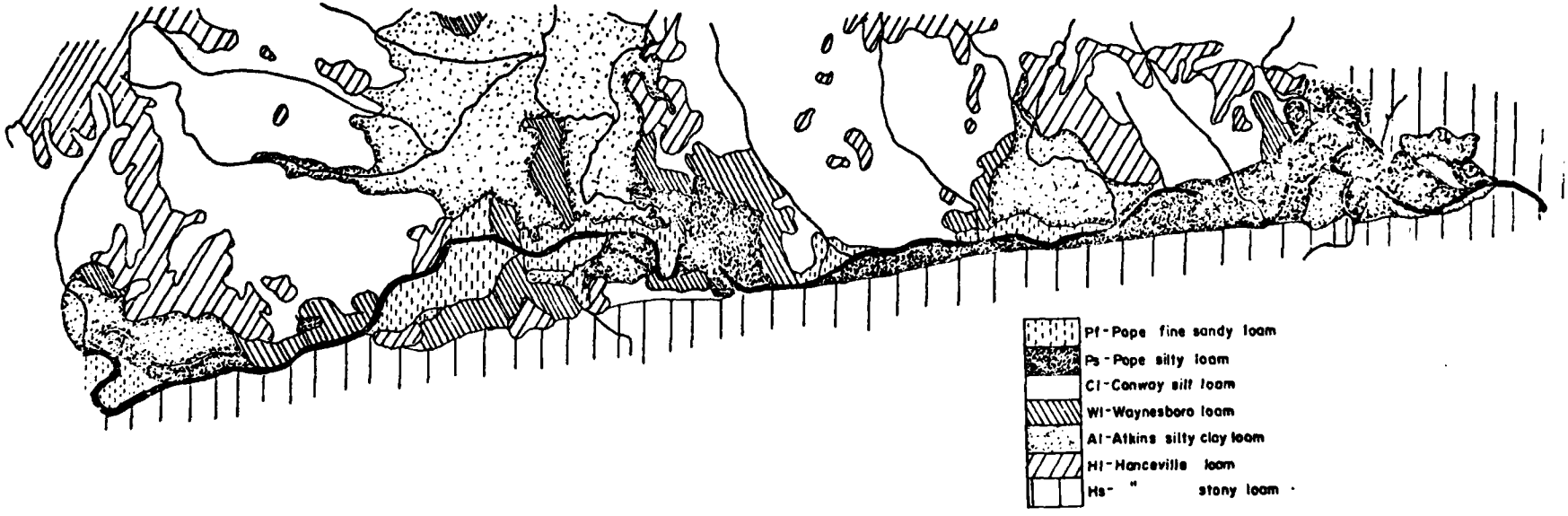

Figure 6. Soils associations at Nimrod Lake.

First Terrace Soils.

Pope Series

Ps--The Pope silt loam consists of a brown to reddish brown silt loam, underlain at about 5 inches by a brown to reddish brown, more compact silt loam to silty clay loam. This passes below into light brown or yellowish brown silt loam to silty clay. Included in this type of soil are areas which have very similar characteristics to Atkins soils.

Pope silt loam occurs in bottomlands along principal tributary streams to the Arkansas River, such as the Petit Jean Creek and the Fourche La Fave River, and is developed in continuous strips up to 2 miles wide. Overflows are a frequent occurrence in these soils, but between overflows the drainage is fairly good. When not under cultivation it is typically forested with sweetgum, blackgum, water oak, ash, sycamore, ironwood, hickory and cane. Corn is highly productive in this soil. Tile drains have been installed by some farmers to improve cultivation in poorly drained areas.

Pf--The Pope fine sandy loam typically consists of a brown fine sandy loam which has a relatively homogenous character to depths of 10-30 inches, where lighter brown to yellowish fine sandy loam, clay loam, or sandy clay is observed. Within Yell County the most important areas of this type occur along the Fourche La Fave River and in continuous strips along many of the smaller streams. The type occurs in the first bottoms of streams, largely along the

immediate banks, where relatively swift currents have deposited coarser sediments. The surface is level to fairly undulating. It has good drainage capacities except in times of overflows. Cotton and corn were chief cultigens of historic times.

Atkins Series

Al--The Atkins silty clay loam is a mottled dark gray and brown or rusty brown silty clay loam, running 2-3 inches and then passing abruptly into a light brown to bluish gray silty clay loam, which at 12-15 inches passes into a mottled gray and brownish yellow silty clay. The Atkins silty clay loam is developed mainly in the bottoms of the Fourche La Fave River with a few areas along the larger tributaries. It is closely associated with the Pope silt loam, likewise formed from wash of sandstone and shale soils. Characteristically, it occupies flat, poorly drained areas, situated some distance from the stream banks. Overflows occur but are of short duration, although many depressions of long standing water can be observed. This is a strong soil which should preferably be artificially drained for cultivation.

Ac--The surface 6-8 inches of Atkins clay is a drab to bluish gray and brown heavy clay, the remainder of the 3 foot section being a light bluish gray to yellowish heavy plastic clay. The lower flats and swampy depressions, including cypress brakes, shallow lakes, and sloughs following old river channels are usually occupied by this type--it is usually covered with a dense forest of cypress, pin oak, gum, vines and mosses.

Casa Series

Cf--The typical Casa fine sandy loam is a brown to reddish brown fine sandy loam, passing at about 10-12 inches into a brownish red fine sandy loam and at about 24 inches into a brownish red sticky, heavy fine sandy loam. A layer of gravel is encountered locally at 30-36 inches. As with the Hanceville and Waynesboro series, this type includes areas of higher stone concentrations, especially along upper courses of streams flowing through narrow valleys. The topography of this type ranges from level to slightly billowy. The land is subject to overflow from swift mountain streams, but between overflows drainage is generally well established.

Second Terrace Soils

Waynesboro Series

Wf--The surface soil of the Waynesboro fine sandy loam is a brown to reddish brown fine sandy loam 8-10 inches deep. The subsoil is a deep red to brownish red fine sandy clay, which becomes somewhat lighter red in the lower part of the 3 foot section, and grades at about 15 inches into red or yellowish red fine sandy clay. Rounded and angular pieces of sandstone are found here and there on the surface and through the soil masses.

The Waynesboro fine sandy loam is developed on older terraces or second bottoms above present overflow and on a few alluvial strips along large mountain streams, where elevation above overflow is not

so pronounced. The surface ranges from almost level to undulating, and the slopes to the first bottoms vary from gentle to rather steep and abrupt. Drainage is generally well established, and cotton and corn were the principal crops of historic times. The soil is very susceptible to gullying and washing and the consequent loss of surface soil.

W1--The surface soil of the Waynesboro loam consists of about 10 inches of a brown to reddish brown yellow loam. The subsoil is reddish brown to brick red friable clay, relatively homogenous within a 3 foot section.

Sandstone gravel occurs locally between 20-24 inches, and small sandstone fragments appear in small quantities on the surface, especially on natural mound areas. The Waynesboro loam occupies nearly level to gently undulating benches and terraces in the valleys of the larger streams that drain the sandstone and shale uplands. It is strongly developed along the Fourche La Fave River. Drainage is generally good, except in areas adjacent to other soils with poor drainage capacities. This soil is considered highly desirable for cultivation.

Upland Soils

Hanceville Series

H1-Hanceville loam is typically a brown to reddish brown loam usually heavier and redder below 5-6 inches, and grades into red or yellowish red friable clay loam in sandy clay at about 8-10 inches

(Deeter and Lounsbury 1917:21). The lower subsoil is characteristically compact and light red or red in color, faintly mottled with yellow. On some eroded slopes compact rather than tough brittle red clay comes to the surface. Fragments of sandstone are usually present, but not in quantities sufficient to interfere with cultivation. This type of soil occupies comparatively low ridges and hillocks and some moderately steep slopes. It is largely confined to lower valley areas and is seldom encountered on higher mountains. It is well drained and well suited to cultivation.

Hs--Hanceville stoney loam differs from the Hanceville loam primarily in its rougher and steeper topography, its high position, and its larger content of angular sandstone fragments. The surface soil is somewhat shallower and bedrock is encountered within 3 inches of the surface. The typical surface soil is a light brown to brown loam, frequently sandy, and underlain by a yellowish or reddish loam to clay loam, passing quickly into a friable compact sandy clay. The stone fragments in most places are sufficiently abundant to interfere considerably with cultivation. This association occurs on mountain tops and gentle mountain slopes, as well as hillocks and ridges through valley lowlands. It is well suited to pine, hickory, and oak timber growths and is usually forested.

Conway Series

Cl--The surface soil of the Conway silt loam is a yellowish brown to grayish brown silt loam 8-10 inches deep. The subsoil is

a mottled yellow and gray silty clay loam. The lower subsoil in places is compact and rather plastic. The Conway silt loam is one of the typical residual valley soils, devised principally from dark-colored shales. This type occurs mainly in low areas of wide valleys. The surface ranges from near flat to very gently sloping and the drainage is poor, particularly within the lower subsoil.

Soil Summary. The use of soil types as a correlational factor to site location has been shown to be effective in various parts of Arkansas, particularly in the Village Creek channel project (Klinger 1979). Soils are a useful environmental variable to measure with an archeological context due to their association with a number of other environmental phenomena of interest to the archeologist. Such phenomena might include topographic distinctions, relative fertility in relation to cultivation and floral and faunal propensities.

According to mode of origin, the soils at Lake Nimrod are either residual soils, i.e., derived in place from the rocks underlying them, or alluvial soils, those formed by sediments deposited during stream overflow.

The residual soils are generally found in the uplands or in gently rolling areas of valleys. The upland soils traversed in the Nimrod survey are residual soils formed from weathered sandstone and shale. The alluvial soils of this area are washed from the sandstone and shale upland soils.

Of principal concern to this study is the association of soils type with topographical features, in particular distinctions between upland areas, and second bottoms or flood terraces, and first bottoms or primary river or stream terraces. The soils encountered in the survey can be grouped by association with these topographic features.

The upland soils traversed during the survey include both soils of the Hanceville series, the Hanceville loam and stoney loam, and the Conway silt loam of the Conway series. The stoney loam type appears in mountainous areas and on lower hills and ridges, while the loam and silt loam are in lower more nearly level areas.

The soils of the second bottoms consist of material deposited when the streams flowed at higher levels than at present, and are usually situated well above present day overflow. Second bottom soils encountered in the survey include the soils of the Waynesboro series, Waynesboro loam and fine sandy loam. These soils often contain gravel and sandstone fragments.

The first bottom alluvial soils are developed along all streams, and consist of material deposited during stream overflow. The first bottom soils located within Nimrod Reservoir include members of the Pope series, Pope silt loam and fine sandy loam, Atkins series, Atkin clay and silty clay loam, and the Casa series, Casa fine sandy loam.

Hydrology

The Fourche La Fave River is formed by the junction of Clear and Black forks, about 10 miles west of Waldron, Arkansas. From the headwaters it flows through mountainous country to its confluence with the Arkansas River about 25 miles north of Little Rock. The distance from its source at the head of the Clear Fork to its mouth is about 160 miles, comprising a drainage area of 1,117 sq miles. The drainage area above Nimrod Dam has a total length of 69 miles and a maximum width of 14 miles, encompassing 680 square miles. The average channel slope above the dam site is about 11.5 feet per mile, while the drop through the reservoir area is only about 2.3 feet per mile.

The reservoir is maintained throughout most of the year at an elevation of 342 feet AMSL. While at this elevation the reservoir is said to be at conservation pool stage. Within the limits of the conservation pool, the reservoir has a total shoreline of 77 miles, a maximum width of approximately 1.1 miles and encompasses a surface area of 3,550 acres. At the spillway crest of 373 feet, which reflects a maximum floodpool stage of the reservoir, the shoreline totals 124 linear miles, the average lake width is 1.25 miles, and a total of 38,000 acres is inundated (Figure 5).

The South Fourche La Fave is the main tributary. This river enters the Fourche La Fave about 10 miles below the dam site and covers a drainage area of 242 square miles. Besides the South

Fourche La Fave, a number of small creeks and intermittent streams leading into the survey area flow from the surrounding mountains through the floodplain and into the Fourche. Four of these streams flow south to north from Fourche Mountain. From the west end of the survey area, Hogans Creek flows north from the mountains into the Fourche La Fave just east of Wards Crossing, at a point where Steve Road bridges the Fourche. Near its confluence with the Fourche La Fave, Hogans Creek extends into a more extensive backwater area included as part of the reservoir. On either side of Hogans Creek are two small intermittent branches flowing from the steep hillslopes bordering the reservoir. To the west is Whitlow Branch and to the east is Ousleys Branch. Both of these branches form small backwater areas included in the limits of the reservoir at conservation pool stage. At the eastern end of the reservoir is the other north flowing tributary of the Fourche La Fave. Brush Creek flows into the Fourche La Fave slightly southwest of the Carden Point Recreation Area located on the north side of the lake (see Figure 5).

A number of tributaries feed the Fourche River flowing from north to south out of the Danville and Ola Mountains and the surrounding hillslopes. Atcheson Creek, Short Goose and Gander branches all enter the Fourche west of Wards Crossing. Just east of Wards Crossing the river is fed by a number of tributaries which join with Porter Creek to form a larger channel known as

Wilsons Slough. Part of this slough is an old meander channel of the Fourche La Fave. To the east of Wilsons Slough, Prairie Creek enters the Fourche. All of the aforementioned south flowing streams have points of origin in the Danville Mountain area.

A number of other south flowing streams dissect the Fourche floodplain from the Carter Cove area east to the dam site. These streams flow from the Ola Mountain area. From west to east these tributaries include Negro Branch, Wells Branch, Carter Creek, Anderson, English and Earl branches, Carden Creek, Cedar Gap Branch, and School House Branch. These tributaries are in part responsible for a number of coves and backwater areas that indent the northern shoreline of the reservoir.

Flood History

A flood of major proportion has the potential to rapidly and dramatically alter the character of the river basin and may affect the cultural resources within it. The specific interaction of flood hydrology and site destruction is unknown, but the potential for site destruction must be taken into consideration.

The drainage area above Nimrod is elongated, with a major river fed by the lateral flow of small tributaries draining steep slopes on the sides of the relatively narrow valley. The fact that the Fourche La Fave receives water from many small tributaries (rather than several large ones) helps eliminate the possibility

of the synchronization of high peak flows from all tributaries. The sinuous channels and timbered slopes tend to further reduce peak flows. The situation is such that high peak flows do not frequently occur in the Fourche above the dam site. Floods of major proportions, however, have been produced by single storms of high intensity, as well as by a succession of storms. Floods of major proportions prior to dam construction occurred during the following periods: August 1915, April 1927, June 1935, January 1938, and February 1938 (U. S. Army Corps of Engineers 1939).

The flood of 1915 is the largest known. Nimrod gauge heights are not available for this flood but residents claim it reached greater heights than the storm of 1927. During the flood of 1927 the river reached a maximum stage of 32.4 feet on the Nimrod gauge (21.6 feet above flood stage), with an estimated peak discharge of 51,000 cfs (cubic feet per second). The floods of 1935 and 1938 were of a lesser magnitude although not of insignificant proportions. The flood of June 1935 reached a maximum discharge of 46,000 cfs. The high water mark on the gauge set 1 mile downstream from the dam site showed an elevation of 27.8 feet, 17 feet above the flood stage. The flood of February 1938 was estimated to reach heights of 29.7 feet on the gauge (about 19 feet above flood stage), reaching an estimated peak discharge of 42,600 cfs.

The contemporary flood record covers only a brief span of time, but floods have been occurring in the area as long as human populations have inhabited the Fourche La Fave basin. It should also be pointed out that a small flash flood of minor proportion but major short term intensity could also significantly affect any surface material exposed to the swift running waters.

Floral and Faunal Resources

Vegetation. The Ouachita National Forest, and surrounding environs which frame the research area of Nimrod Reservoir, is classified as an upland hardwood shortleaf pine forest type (Turner 1966). Prior to European settlement the area was most probably dominated by hardwood forest in the uplands and on second terraces, with cane, birch, and willow predominating in the floodplain.

The present day forest vegetation surrounding Nimrod is the result of an ecological transition caused by the presence of human populations. Heavy cutting and clearing and repeated wild fires have altered the primeval forest, especially on low terraces and in the floodplain areas once rich in a variety of species. Today the area is heavily forested in shortleaf pine, which occur predominantly on the dry, rocky south facing slopes. The majority of the hardwoods in the area are found on deep well-drained soils on moderate slopes with northern and eastern exposures, and in the alluvial valley itself. These areas are frequently intermixed

with white oak, northern red oak, black oak, cherry bark oak, hickory, and sweet gum. Birch, willow, and ash are found immediately adjacent to the present pool level. Other species found on terraces and throughout other areas near the reservoir include black gum, cottonwood, elm, hackberry, persimmon, and black walnut (Turner 1966).

Animals. The area surrounding Nimrod Reservoir is rich in animal species. Terrestrial animals native to the area include white-tailed deer, turkey, skunk, opossum, cottontail rabbit, raccoon, red and gray squirrels, coyote and black bear (Turner 1966:33-34).

Waterfowl are known to frequently inhabit areas around Nimrod, especially in Wildlife Management Areas. These include ducks, quail, and wild geese. Game fish native to the reservoir include large mouthed bass, white bass, yellow bass, walleye, crappie, bream, sunfish, channel catfish, and yellow fish. Carp, buffalo, drum, and gar are also found in the reservoir.

The environs surrounding the project area of Nimrod Reservoir would have furnished ample resources for subsistence by aboriginal populations. It is expected that oaks, hickories and walnuts offered important nut resources for exploitation by man and game animals alike. Among the land mammals white-tailed deer and turkey were probably primary faunal resources. The waterfowl, game fish, and perhaps mussels found in streams and rivers would also have been important food resources.

CHAPTER 3

PREHISTORY, HISTORY AND PREVIOUS ARCHEOLOGICAL WORK IN THE NORTHERN OUACHITAS

THE CULTURAL HISTORY SEQUENCE

Paleo Indian Period (ca 10,000 B.C. - 8,000 B.C.)

This period is the first documented human occupation of North America. Small nomadic bands hunted late Pleistocene megafauna (e.g., mammoths, mastodons, bison and smaller game) and also gathered wild plant foods.

The most distinguishing characteristic of the artifact inventories from this cultural stage includes the presence of fluted projectile points. Although no Paleo Indian living sites have been recorded for Arkansas (Hoffman 1969:39), there are documented fluted points in amateurs' collections taken from the Ouachita and Arkansas river drainages. Davis (1967:2) illustrated one fluted point from Logan County. Baker (1974) reported one from a private collection within the Ouachita Mountain area and Ray (1961) reported one from LeFlore County, Oklahoma just west of the headwaters of the Petit Jean River. In addition to these, Ann Early (1979) has referenced three locations of fluted point finds from the eastern Ouachita Mountains. Two of these were from high terraces overlooking stream valleys; one along the Ouachita River at the present site of Blakely Mountain Dam and the other at the

confluence of the Caddo River with one of its tributaries. The third find came from a low terrace of the Caddo River.

Not all Paleo Indian projectile points are fluted. It is possible that unfluted Paleo Indian projectile points and other components of Paleo Indian assemblages exist in collections, but have not been recognized as such.

Archaic Period (8,000 B.C. - A.D. 1)

The difference between Paleo Indian and Archaic adaptations is generally seen as a shift from primary exploitation of Pleistocene megafauna, in particular the bison, to subsistence strategies exercising more variation in faunal and floral resource extraction. Specific changes in subsistence include more intensive use of riverine resources and greater seasonal patterning of resource procurement.

The earliest of the Archaic cultures is the Dalton culture. Components of this culture, best known from northeast Arkansas, have been identified by an assemblage featuring distinctively shaped projectile points and other lithic artifacts including chipped stone adzes (Morse and Goodyear 1973). Dalton projectile points have been recovered from the eastern Ouachitas along river terraces and higher elevations (Early 1979).

In southwest Arkansas early Archaic periods are characterized by artifact assemblages including unfluted lanceolate projectile points often posessing a ground base, beveling, serrating, and some

notching and stemming of the base (Hoffman 1969). Artifact assemblages characteristic of later Archaic components include the introduction of ground and polished stone tools (middle Archaic--Hoffman 1969) and later additions of grooved axes, atlatl weights, and plant processing tools such as grinding and cutting stones (late Archaic--Griffin 1967). Late Archaic occupations in the Red River basin are also noted to include projectile points with contracting, expanding, and straight stems (Hoffman 1969) in addition to the artifacts previously mentioned.

Woodland Period (A.D. 1 - 1,000)

The onset of the Woodland stage is usually defined by the first appearance of ceramics. Other major cultural additions within the area may include sedentary or semisedentary villages, burial in earthen mounds, and a general shift toward more sedentary forms of subsistence including the introduction of agriculture.

Artifact characteristics of the area for this stage include: plain, grit- or clay-tempered pottery (e.g., Williams Plain) commonly found with thick, circular disk bases and in a number of simple bowl and jar forms; large chipped stone spades, usually made of a gray quartzite; Gary contracting stemmed projectile points; ground and polished boatstones; pitted cobbles (Early 1979); and thick clay Poole pipes (Hoffman 1967).

In the Ouachita Mountains, the principal Woodland stage culture has been termed Fourche Maline, a name originally assigned to sites of both Archaic and Woodland periods from the upper Poteau River valley in eastern Oklahoma. Those sites were open midden deposits yielding both Archaic and Woodland material. In contrast to this definition of Fourche Maline, archeologists within Arkansas have chosen to restrict their use of Fourche Maline to only the ceramic making culture groups of the stage. The two most characteristic artifactual features of this culture so defined are the presence of Gary (contracting stemmed) projectile points and Williams Plain pottery (Early 1979).

Archeological sites with Fourche Maline components are common in the Ouachitas. Within the eastern Ouachitas, midden deposits have been found along the terraces of streams and major rivers and at higher elevations along stream valleys (Early 1979). Also, Padgett (1978) interpreted the majority of ceramic sites recorded during the survey of Blue Mountain Lake (in the northern Ouachitas) to contain Fourche Maline components.

Mississippian Period (A.D. 1,000 to 1,700)

At some point after A.D. 800 more intensive agriculture was practiced by aboriginal populations within the Mississippi River valley. Lifeways became even more sedentary and social organization became more complex. The major subsistence change was to the use of domestic species of corn and beans as primary foodstuffs.

New forms and styles of artifacts and other material remains also were present at Mississippian stage sites. Small projectile points were used which were presumably arrow points rather than points for darts or spears. Changes in ceramic manufacturing techniques included the use of shell as a tempering agent, a variety of new forms of containers including bottles and plates, and the prevalence of animal effigy forms(Early 1979).

The Caddoan culture is the major and perhaps the only true Mississippian development in the Ouachita Mountains. The Caddoan ceramic complex had distinctive decorating techniques including incising, engraving, the relative popularity of polishing and excising, and the use of paint in engraved and incised techniques. One distinguishing characteristic of Caddoan pottery, observable from some ceramic fragments, is the occurrence of flat bases in conjunction with vessel form. Other characteristic artifacts of Caddoan complexes include long stemmed pipes, several later forms of the biconical elbow pipes, and small arrow points such as the Hayes and Howard point styles. When found outside the Caddoan area these points are interpreted as evidence of trade (Hoffman 1969:161).

> One of the characteristics of Caddoan culture which appears to mark its distinctiveness from other Mississippian societies seems to be a settlement system featuring a pattern of small habitation sites, probably representing individual family based economic units. These were dispersed about and affiliated with a regional political/religious center where there were few residents. Most likely only members of socially elite families responsible for the care, maintenance and use of special religious buildings were situated at the center. Additional components of this settlement system are expected

> to be a constellation of special purpose sites related to a range of economic and social activities. (Early 1979:31)

Within this settlement system, habitation sites and ceremonial centers are situated primarily but not exclusively in major stream valleys. Special activity sites tend to be the most common type in upland areas although not restricted solely to upland areas.

Historic Period

Three historic Indian groups made claims to the region encompassing the Fourche La Fave River and its drainages. Although generally concentrated around the mouth of the Arkansas River, the Quapaw Indians claimed much of the land above their villages on the Arkansas River. This tribe once inhabited much of Yell County until 1808 when they relinquished all claims there (Banks 1959:15).

The Caddo Indians at the time of contact were occupying the Big Bend area of the Red River (McGimsey 1969:42) and probably claimed much of the Ouachitas. Neither of these tribes have been historically documented as occupying the Fourche La Fave valley in the vicinity of Nimrod Reservoir, but both probably used the area for specific resources extraction or trade, if not for settlement.

The south flowing Ouachita, Saline and Red rivers were most probably important routes of travel for Caddoan groups venturing north for hunting or trade. The east-west running tributaries of the Arkansas, e.g., the Fourche La Fave or Petit Jean rivers, offered the Quapaws or any other group access to the interior of the Ouachitas.

The Cherokee Indians, removed from their lands in the eastern United States, arrived in Arkansas in the early 1800s. One leader, Chief Dutch, and his followers are known to have settled in regions proximal to the Fourche La Fave River. The chief made camp on Dutch Creek about 3 miles west of Danville. He is said to have included in his hunting jurisdiction all the Fourche valley now in Yell County, and may have been the most powerful of the Cherokee chiefs within the northern Ouachitas (Banks 1959:16). These Indians were also reported to have cleared little patches of land which they farmed separately and identified family boundaries with stones (Banks 1959).

Early white explorers may have ventured up the Arkansas River in the early 1700s but if they did they left little record of their travels. In the summer of 1816 the first organized expedition into Yell County took place. The purpose of this venture was to search for gold, and among the members of this party supposedly was the legendary pirate Jean LaFitte.

The first permanent white settlement near Nimrod Reservoir was at Dardanelle, mentioned in 1819 by Nuttall, a traveler and naturalist. By 1830 several settlements had sprung up within the area and one of the early townships includes the Fourche La Fave Township. Roads in the region were few during the early 1800s but keel boats traveled both the Fourche La Fave and Petit Jean rivers.

The Fourche La Fave River valley in the vicinity of the present Nimrod Reservoir has probably had a farming and ranching economy throughout historic times. The first settlers inhabited and cultivated the flood terraces and hillslopes adjacent to the Fourche La Fave due to the lack of vegetation undergrowth resulting from the dense high stories in the hardwoods native to the area (Banks 1959). These lands were easier to clear with the implements of the time, as opposed to the valley bottom itself which contained more dense undergrowths.

The slopes which border the Fourche La Fave in the survey area were heavily timbered by such large industrial organizations as Dierks Lumber. As timber prices went up, cultivation shifted to primarily bottomland soils, taking advantage of the much valued timber resource. The Rock Island Railroad established a line within the vicinity in order to better facilitate the movement of timber from the slopes to the mills. Once the major timbering activities had slowed down after somewhat exhausting the regional resources, the railroad also ceased operations. Remnants of a bridge crossing the Fourche La Fave can still be found within the areas inundated by Nimrod Reservoir.

PREVIOUS ARCHEOLOGICAL WORK

The northern Ouachita Mountain area, which includes the Nimrod Reservoir, is not well known archeologically. Only a few surveys and excavations have been done and there is little information about the archeological resources and culture history of the area.

Harrington (1924:86-88) offered a brief glimpse of the Carden Bottom complex on the Arkansas River near Dardanelle. He considered the ceramics, and culture found there generally, to be a mixture of Caddoan and Quapaw (Hoffman 1977:6). Harrington also included in his paper a description of the appalling pothunting activities at this site. This is the only record in print we know of which reflects the intensity of the commercial pothunting of cemetery sites along the Arkansas River in Yell County (Hoffman 1977:4). Harrington surveyed portions of the upper Ouachita drainage just north of Hot Springs, where he tested the Gulpha site which contained a Caddoan component.

The first archeological excursion into the Nimrod Reservoir area was initated by Warren K. Moorehead in 1931. Moorehead surveyed portions of the central and upper Arkansas River valley resulting in a publicaton which "provided little more than superficial generalizations about the artifacts found and a few brief discussions of specific sites located on the survey" (Hoffman 1974:4). Within his report a map provided by C. B. Franklin plotted a number of sites within Yell County. Shown on his map are several sites in

the vicinity of the north Fourche La Fave River now inundated by Nimrod Reservoir. Although these sites are plotted along portions of the Fourche La Fave encompassed by the survey area, no description was provided that indicated how far removed from the river these sites were located. It is impossible to know, therefore, whether or not these sites were actually inundated by the reservoir construction.

More recently, Robert Greengo of the Smithsonian Institution River Basin Surveys made an archeological survey of a portion of the Arkansas River valley which was shortly thereafter flooded to create Dardanelle Reservoir (Greengo 1958). Fifty-five sites were located in this survey. Some of these were thought to relate to the Carden Bottoms site (Greengo 1957) while others were assigned a general affiliation of early Archaic, pre-Caddoan, and Caddoan.

In the summer of 1974 three surveys of portions of the South Fourche La Fave River watershed were conducted by Dan Wolfman and Jeff Flenniken of the Arkansas Archeolgical Survey. These surveys were hampered by heavy ground cover. Wolfman's (1974) survey discovered only two small lithic scatters of unknown affiliation, and one of Flenniken's (1974b) surveys yielded three sites of unknown age or cultural affiliation, while the other failed to record any sites.

Charles Baker (1975) conducted a survey of the Garland County Industrial Educational and Cultural Complex in Hot Springs in December 1974. Two sites of unknown age or cultural affiliation were discovered along with one possible Archaic site. In addition, Baker (1974) and Rolingson (1974) were responsible for surveys and testing carried out on the upper Petit Jean watershed, to the north of the Fourche La Fave River, where seven prehistoric sites were recorded. These surveys were somewhat hampered by poor surface visibility and refusal of access to private lands.

In 1976, the Arkansas Archeological Survey conducted a project to sample the Caddo Planning Unit of the Ouachita National Forest. A total of 92 sites were recorded during the project, distributed over a range of physiographic features. A tentative model of settlement was formulated from the survey data which suggested a lowland/base camp and upland/resource procurement dichotomy in settlement and subsistence.

Three surveys have been recently carried out in the upland areas of the Ouachita Mountains (Brooks 1976; Imhoff and Mathis 1967; Imhoff 1976). These surveys reported a small site density for these highland areas, partly due to the poor surface visibility of these forested areas. Most sites encountered were thought to represent remains of small hunting camps or other hunting related activities of unknown prehistoric cultural affiliation.

Padgett (1978) conducted an archeological survey at Blue Mountain Lake, a reservoir constructed on the Petit Jean Creek, 10-15 miles north of the Fourche La Fave River. The survey recorded 39 sites of various age and function, including several sites of the Fourche Maline cultural affiliation. A separate experimental study designed to test certain effects of inundation upon archeological sites was also conducted by Padgett at Blue Mountain Lake.

> The experiment involved creating archeological context situations for a variety of artifacts and features in an area to be inundated and conducting preliminary analysis upon the materials used as a basis for post-inundation comparison. (Padgett 1978)

This study may eventually provide some useful information for interpretation of inundating effects of reservoir construction and maintenance upon cultural resources.

In the fall of 1978, Bill Martin conducted a survey of the Fancy Hill area in the mid-Ouachitas adjacent to the boundaries of the Caddo Planning Unit of the Ouachita National Forest. Seventy-six sites with prehistoric and historic components were recorded during the survey across this primarily upland area. Most prehistoric sites were thought to represent Archaic occupations. Martin also concluded that an upland/resource procurement and lowland/base camp dichotomy of settlement and subsistence is not absolute, on the basis of a number of habitation sites found in extreme upland areas.

Finally two sites have been previously recorded in areas adjacent to the survey area at Nimrod: 3YE17 and 3YE19. Site 3YE17 was found along the west bank of Hogans Creek and produced an extensive lithic scatter with some ceramics. The site is interpreted as an Archaic (*into Woodland*) habitation unit. Site 3YE19 was characterized by a large scatter of lithics concentrated along a series of small rises running away from the Fourche La Fave just northwest of the intersection at Wards Crossing. The site was interpreted as an Archaic camp.

CHAPTER 4

METHODOLOGY OF THE NIMROD LAKE RECONNAISSANCE

SURVEY TECHNIQUES

Access to the survey area was accomplished using a 4-wheel drive truck and flat-bottomed boat with a small motor. The truck provided the best access to the northern shore of Nimrod Lake while the boat was necessary to gain access to exposed islands within the reservoir, and portions of the shoreline to the west and south.

With a few exceptions all areas exposed by the drawdown were surveyed on foot by the field team. In some instances only one person walked a predesignated area. This was done in order to cover more surface area per unit time, a strategy especially efficient when surveying relatively narrow strips of shoreline.

In walking the shoreline either a series of linear passes or a zig-zag pattern (present water edge to conservation pool edge) was employed. The distance between passes or zig zags varied with ground visibility and general topography. The objective was to space passes within a range in order to gain visual coverage of every area. No more than 30 meters separated any two consecutive passes and/or the distance between surveyors when both survey personnel were walking a strip.

The surface area of the lake bottoms at Nimrod Reservoir varies along its east-west (long) axis. West of the Carter Cave

area the reservoir is composed of river channel, some backwater areas, stream channels and confluences, and sloughs. Much of the area inundated was limited to 10 m strips of exposed river channel with slopes ranging from 30-60° or more. Some of this shoreline (less than 25% or 1 mile) was surveyed by boat. This was done only where the entirety of the exposed shoreline could be seen and surveyed adequately from the boat. In addition, any areas with characteristics of known sites, e.g. scatters of cracked sandstone, were always surveyed by foot.

SITE DESIGNATIONS AND LOCATIONS

Spatial control within the project area was implemented utilizing USGS topographical quadrangle maps (7½ min.) and Corps of Engineers planning maps for the impact area. Each site located was plotted upon the USGS maps and given a project number. In some cases, where more than one sample was taken from a single site, these sample units also appear on the quadrangle map.

When cultural material was continuous within an area and clearly separated from any other artifactual material by usually at least a 30 m hiatus, a unique site designation would be given to this distribution of material. If, however, several dense scatters of artifacts were noted within an area, and these clusters were connected either by a sparse continuity of similar material or similar topographical or other environmental variables and were

not separated by a sterile hiatus of over 30 m, then these clusters were treated as separate samples within one site.

COLLECTION STRATEGIES

A collection of artifacts was made on most of the sites. The exceptions to this rule were in the cases of sites denoted by only a few (one or two) pieces of undiagnostic chert, i.e., where no assessment of cultural affiliation could be made. Given the extent of the project area it was decided that not collecting a few of these sites maximized available staff time without sacrificing significant data.

Most collections made at the sites encountered in the survey were select collections which placed the choice of what materials were collected at the discretion of the individual surveyor. The select collections were made with several objectives in mind. These included 1) gathering as representative a sample as possible given the nature of total artifact distribution, and 2) attempting to collect samples which would illustrate the full range of variability of artifact types, lithic resources, and other associated site phenomena (e.g. cracked sandstone). Some controlled collections were also made. These consisted of a total recovery of materials made within a given unit of space, thought to be representative of the whole site or a portion of a site.

The size of the samples taken from any one site varied with the density and variability of the artifactual material collected. Some sites produced only a handful of lithics over the whole exposure, while others produced large collections which may have constituted less than 1% of the visible surface material.

On large sites that were densely covered with artifactual material, larger samples were recovered in an attempt to obtain a more adequate representation of an obvious plethora of data. Many sites (and especially the large visible ones) were being actively collected by the public and had been subject to surface collecting and subsurface digging during previous drawdowns. Therefore one priority of our select sample went towards diagnostic artifacts which were being removed by collectors.

AREAL COVERAGE

The area covered by the foot survey was approximately 3,000 acres of lake bottoms exposed by the drawdown. Although most areas of the lake were surveyed in a standard fashion, some areas were less intensively surveyed than others. Certain other locations had higher site potential and were given closer inspection. These included: 1) stream and river terrace banks; 2) the confluence of streams; and 3) areas noted to be covered with concentrations of cracked sandstone. The latter characteristic, presence of cracked sandstone, proved to be a reliable indicator of the presence of other artifactual material throughout most of the survey area.

The only areas not intensively surveyed were either inaccessible or obviously unproductive (of sites) due to surface visibility or site location. For instance, in places where remnant streams or river sloughs had dried up, the very center portions of these streams and sloughs were generally muddy and inaccessible as well as not possessing good artifact visibility. There was also little likelihood that sites would occur in the middle of what is usually moving water.

The upper shoreline of the lake, i.e., the terrace edge just above the conservation pool level could not be systematically investigated although it contains many sites. Most sites found at the pool edge appeared to be eroding out of the bank cut due to lake action. When a site was located at the shore edge, an investigation of the associated upper bank was also made, although ground cover usually obscured any detection of surface material there.

Only one area within the reservoir received a significantly lower level of intensity of survey within the project area. This was a 2-4 mile strip of river channel toward the western end of the reservoir (Figure 7). When the lake bottom was down at the lowest levels, the strip of river was inaccessible by boat and uneconomical to survey by foot. In addition, only a small portion of river shoreline was exposed. As the lake rose higher in response to a few November rains, the area became partly accessible by boat but contained almost no exposed shoreline. The survey crew was

satisfied to sample the strip in four or five spots along its shore that were accessible by truck (Figure 7).

FIELD SURVEY CONSTRAINTS

The surface visibility encountered at Nimrod was generally good, with a few exceptions in extremely muddy areas, spots of unusually heavy silt accumulations, and a few locations where surface rock debris was so dense as to obscure surface visibility.

Because the lake level was shallow and constantly dropping, any small detour out of a sometimes ambiguously marked river channel ran the crew's flat bottom boat aground. Also, the 4-wheel drive vehicle did not perform well in wet mud of a high silt clay and clay content or in small sinks or springs invisible to surface inspection.

Difficulty was also encountered in trying to accurately pinpoint sites on USGS topographic maps (7½ min.) which are standardly used for site location by archeologists throughout the state. Many intermittent streams feeding into the Fourche La Fave and transversing its valley were simply not represented on the maps. In addition, the configuration of the shoreline as seen on a quadrangle sheet and as viewed in situ were at times quite disparate. This was due not only to the procedures of mapping the quads from aerial photographs but also due to the active erosion witnessed to be occurring in many places along the lake edge.

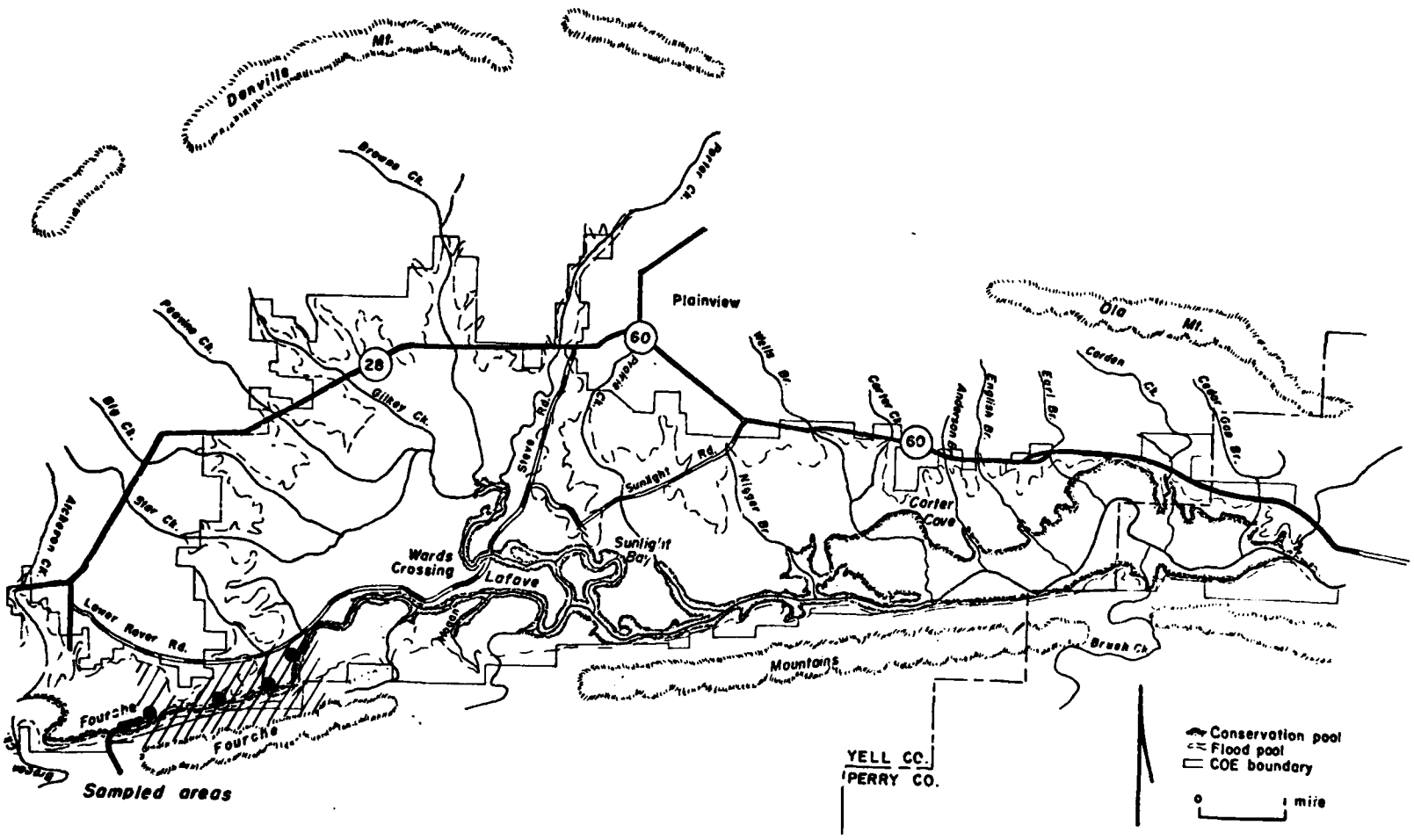

Figure 7. Zone of less intensive survey.

COE planning maps, with 20 m contour intervals were of great help in accurately locating certain sites. It is suggested that aerial photographs (even at a small scale) along with these planning contour maps would have provided a better aid in site location and plotting.

A major constraint upon the recovery of an optimum sample of the cultural resources indigenous to Lake Nimrod was that of site collection by the public (see Chapter 5). While the present investigation was in the field survey stage, many collectors were observed by the field team. It was a difficult task to simply stay one step ahead of the collectors and because one of the research goals was to collect a range of materials from each site, this task was not accomplished at times. In one instance, following a hard rain which exposed large amounts of artifact materials, two collectors in boats were seen diligently collecting several small islands just south of the Carden Point recreation area. It was later reported to the field team, who were unable to obtain a boat for the day, that two collectors had left with coffee cans full of projectile points.

In addition to the unauthorized collections seen during the recent drawdown of Nimrod Lake, it has been reported from local inhabitants and COE personnel that during past drawdowns many sites were subject to repeated collecting, yielding large numbers of diagnostic artifacts such as projectile points, adzes, axes, and

even complete ceramic vessels. Two areas in particular, Carden Point and Crapshooters Point were known by COE personnel and many locals to be rich sites. It is interesting and rather amazing to note that the surface collection of these and other known collected sites still yielded some diagnostic artifacts, although in fewer numbers than could have once been found.

CHAPTER 5

IMPACT OF THE NIMROD PROJECT ON ARCHEOLOGICAL RESOURCES

Because the portions of Lake Nimrod exposed by the drawdown were the only areas investigated, most sites discovered are completely submerged by the lake when at conservation pool level. Many others are only partially submerged at this level but are completely under water when the lake is at flood stages exceeding 345 ft. AMSL. The destructive effects of reservoir construction and subsequent fresh water submersion of archeological sites are a relatively new realm of research and few conclusions can be drawn from the paucity of available data. Nevertheless, a summary of observed and potential adverse effects of the construction and continued maintenance of Nimrod Reservoir is outlined below. The impact of inundation upon each of the recorded archeological sites is discussed in the site descriptions (Appendix D).

Much of the Fourche La Fave floodplain in Yell County was under intensive cultivation prior to dam construction (U. S. Army Corps of Engineers 1939). Cultivation disrupts the soil matrix; it can both remove and mix archeological deposits that were stratigraphically separated, and contribute to erosion of the fields. Therefore, it is probable that some disturbance had occurred on many of the sites prior to the construction of Nimrod dam.

The mechanics of reservoir construction might have contributed to destruction or alteration of archeological resources in two ways. First, the activity of heavy machinery in preparing the floodplain for eventual reservoir use would have produced deleterious effects by churning up soil and by the pressure it would have exerted upon the resources beneath. Stratigraphically distinct materials may have been mixed and may have undergone breakage.

Secondly, in preparation of the floodplain for pool filling, trees were topped and accumulations of timber and lower level vegetation were pushed together and burned (COE office, personal communication). The stripping and removal of vegetation resulted in surface soil disturbance. Due to the removal of vegetation which prevented erosion, the floodplain stripping would have contributed to a greater erosion of archeological materials. The transport of vegetation across the land surface could have removed and redeposited cultural resources by the thin stripping of the soil which would occur through these actions.

Vegetation piles were burned, possibly altering the nature of archeological deposits in near proximity of the fires. Lithic material could have been artificially fractured or gained a heat-treated appearance. Ceramic fragments could have been destroyed or changed by burning. Previously observable site middens located in burned areas would be obscured by the alteration to the soil surface due to heating.

RESERVOIR MAINTENANCE

Except for short periods of lake drawdown for water and fish population management, the reservoir pool covers the archeological resources within it. The greatest degree of archeological site destruction observed at Nimrod during the recent drawdown relates to problems of erosion. Varying intensities of erosional processes were observed throughout the survey of the exposed lake bottom. Most erosion was observed on the terrace banks of the Fourche La Fave, at the streams cutting into the floodplain which feed the Fourche, and at the edge of the conservation pool.

The effects of erosion on the banks forming the reservoir shoreline are easily observed throughout the project area. Scouring of the shoreline is evident in fresh banks slumps and cuts and by terracing effects seen at several places (Figures 8 and 9). Herbert Ross (personal communication) reported that the present shoreline has undergone marked change in configuration since reservoir construction.

Observations made at sites along the shorelines of lakes and reservoirs consistently indicate that this type of partial immersion causes great physical damage to archeological deposits. Padgett (1977:44) refers to six separate studies, all of which came to this conclusion. In each of those cases, fluctuating water levels and wave action were reported as the destructive mechanisms. The amount of disturbance caused by waves varies according to the

Figure 8. Terracing, cutting, and slumping of river channel at Nimrod Lake

Figure 9. Terracing along meander channel at Nimrod Lake

conditions present. For example, waves are more destructive when breaking parallel to the shoreline than when striking the shore at an oblique angle. Two other important variables are slope angle and vegetation cover of the shoreline.

On the south side of the lake and at the upper end of the reservoir where the reservoir is confined to the river channel and the gradient is much steeper, other factors in addition to wave action may result in bank slumping. An increased water flow in the reservoir would create turbulence which causes sediments to be carried from banks, in effect undercutting the bank, and a subsequent lowering of pool elevation would result in the bank caving in (Leopold et al. 1964). A rapid decrease in pool elevation such as occurs during drawdowns would alter the pressure between the channel or pool's hydrostatic pressure and the adjacent saturated bank, also resulting in caving or slumping of the bank. Slumping of the terrace banks along the river channel, especially at the west end of the reservoir, was repeatedly observed during the survey of the Nimrod Reservoir (Figure 8).

Within the more level floodplain of the Fourche La Fave most erosion was noted along river or stream banks. Tree stumps frequently marked terrace edges, and the most obvious signs of erosion were the exposed root systems of these stumps (Figure 10). The erosional processes in operation are analogous to those of bank cutting; pool fluctuation and flooding cause turbulance which

Figure 10. Exposed tree roots along a stream terrace edge at Nimrod Lake.

in turn erodes terrace edges and cultural deposits. Water flow rates, which are greatest within the river and stream channels of a filled reservoir, vary with annual fluctuations of the pool level and even more dramatically during flood periods. Several geologists (Baker 1977, Butler 1977) have examined and quantified sediment and rock movement during flood periods. They found that even low magnitude floods may cause significant changes in the depositions of sediment, pebbles, and boulders.

Drawdowns staged for water and fish management constitute a special type of pool fluctuation. During drawdowns the rapid decrease of the pool level contributes to terrace cutting and slumping. In several areas along the shoreline a terracing effect was observed and thought to be the result of artificial pool levels created during the drawdown (Figures 8 and 9). The exposure of the lake bottom results in drying and cracking of surface soils and artifacts. Ceramic materials are particularly affected by this process. Even in the controlled conditions of a laboratory, saturation of ceramics with water and subsequent drying may effectively erode the sherd matrix. Soils exposed during a drawdown may consequently become more unstable and undergo some sediment loss through suspension of dry soil particles as the lake rapidly refills.

Another long term effect of the reservoir on archeological deposits is the loss and skewing of paleoclimatic data. Most faunal and floral remains will not be preserved after inundation (Garrison

et al. 1977). Padgett (1978) noted in particular that Fourche Maline sites found at Blue Mountain Lake exhibited no trace of midden staining or organic deposits--a known characteristic of most Fourche Maline sites. In addition, practically all of the shell-tempered pottery found during that survey had undergone extensive leaching, thereby removing all of the shell temper. Many lithic artifacts exhibited patination due to continued submergence.

PRIVATE COLLECTORS

Another impact with extremely adverse consequences comes from the indiscriminate collecting and subsurface digging (Figure 11) of exposed sites by private collectors. Local inhabitants of the area tell of intact ceramic vessels and large quantities of projectile points being removed from the exposed bottoms during past drawdowns. Apparently each drawdown brings a wave of collectors who roam the shoreline and even obtain boats to search the islands for artifacts. The past drawdown in 1978 was no exception. While conducting the survey, rarely a day passed in which at least one individual was not noticed collecting sites (Figure 12). Collectors gained access to sites by truck, boat, and even motorcycle.

The primary effect on sites by private collectors is the removal of great numbers of diagnostic artifacts. Many of the site collections at Nimrod consequently yield biased samples of numbers and types of cultural materials. Because collectors

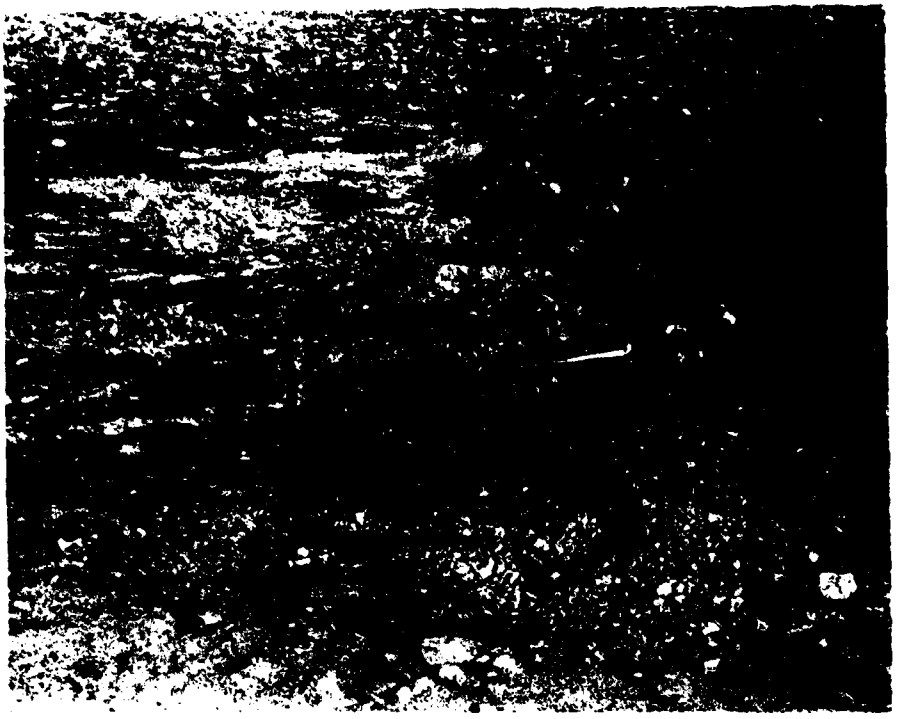

Figure 11. Results of subsurface digging by unauthorized collectors.

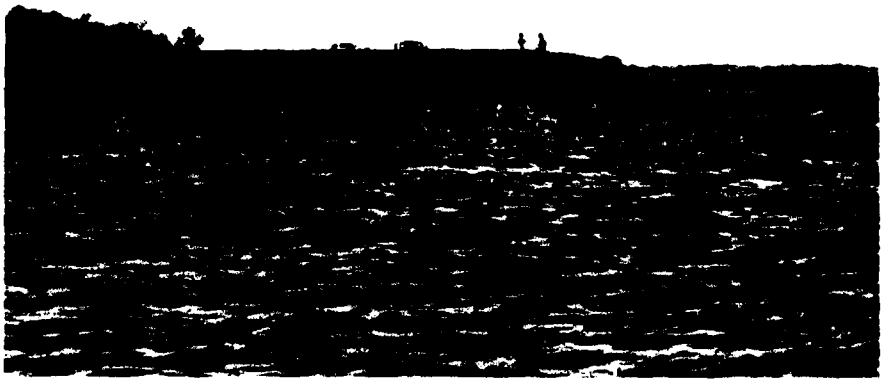

Figure 12. Unauthorized collectors at site 3YE149.

retrieve only a narrow range of artifacts, they can visit many more sites in a shorter time than can an archeologist who collects a wide variety of information and artifacts at each site. This is an unfortunate race which the archeologist can rarely win.

Newspaper articles were published requesting local citizens not to collect sites, and Corps of Engineers signs warning that violators may be prosecuted for collecting were posted before the recent drawdown. These measures did little, if anything to dissuade collectors. In the future perhaps more severe measures will have to be taken to protect the cultural resources exposed by the drawdown.

CHAPTER 6

RESULTS OF THE SURVEY

In the survey of Nimrod Reservoir, 187 new sites were recorded: 149 of these were located in Yell County which encompassed the majority of the survey area and the remaining 38 were located in Perry County. Of the 187 sites recorded, collections of cultural materials were made on 176. Most collections were of the select type but 36 sites had controlled collections. In some cases more than one controlled collection was taken from a site. A complete inventory of the cultural remains collected during the reconnaissance at Nimrod is tabulated for each site in Appendix D.

SITE CONTENTS

Lithic artifacts were by far the most numerous type of cultural material recovered; 8,542 lithic fragments were recovered. Forty-seven sites yielded 974 prehistoric ceramic remains while 18 sites contained 103 pieces of historic ceramics and 84 glass and 19 metal fragments. Twenty-six faunal specimens and five noncarbonized plant remains were recovered from 11 sites during the survey. Both faunal and floral specimens are of recent origin and are not in clear association with other artifactual remains. These specimens, therefore, were not further identified or analyzed for this report. Several pieces of clay daub, perhaps indicating past house construction, were collected at two different sites. A preliminary analysis of these materials is presented below.

LITHIC REMAINS

Lithic remains were grouped into the general categories of bifacially flaked tools, flakes, groundstone artifacts, cores and miscellaneous debitage, cracked sandstone and unmodified lithics (Appendix D). Further breakdowns were made in the biface, flake, and groundstone categories. Flakes were typed into worked and nonworked groups; bifaces into projectile point/knives, scrapers, miscellaneous bifaces, and unidentified bifaces; groundstone tools into nutting stones, hammerstones, and other ground tools (e.g., manos, metates). The purpose of this second level classification was to isolate those diagnostic tools which may yield information concerning site function and chronological placement.

The type of lithic artifact most frequently found at Nimrod was flakes, which comprised 80% of the lithic inventory. Bifacial implements were nearly 8% of the collections (654 pieces), and 78% of these were projectile/point knives. A low frequency (1%) of groundstone tools was recovered at Nimrod, due to both their rarity and the collection technique of the surveyors. The sheer size and weight of this type of artifact made it impractical to extract many such items within a single sample.

Several other identifiable artifacts were infrequently recovered at Nimrod including: drills, gravers, spokeshaves, preforms, double-bitted axes of silicious siltstone, a celt, and a waterworn polished stone thought to have been utilized for burnishing ceramic vessels or

in preparing ochre for use as a dye. Both ceramics and ochre were recovered from the site with this polished stone (3YE70). The remaining artifacts within the total lithic inventory were classified as cores and miscellaneous debitage (5%) cracked sandstone (2%) and unmodified (4%).

A final note is that the surface presence of a certain lithic type, cracked sandstone, proved to be an accurate indicator for the location of many of the sites recorded in the reservoir. A compounding interest of these fragments is created by their similarity in appearance to fire-cracked rock, although we cannot say whether or not the sandstone fragments have undergone thermal alteration.

PREHISTORIC CERAMIC ANALYSIS

Forty-six sites, or 25% of all sites within the survey of Lake Nimrod, contained prehistoric ceramic remains. The total number of pottery sherds collected during the survey was 974, the largest single collection being 247 sherds from 3YE213, a site located on a large river bar on the south shore of the Fourche La Fave River. The inventory of ceramics for each site is found in Appendix D. Ceramic remains are classified by temper, vessel portion, and presence of decoration. The types of tempering observed within the ceramic inventory include grit, shell, and bone temper. The vessel portions observed include rims, bases and body sherds.

Temper Classification

The majority of the remains from Nimrod showed signs of grit tempering while much fewer had shell or bone tempering. More exactly, 853 sherds (87% of all ceramics) were grit tempered, 114 (12%) were shell-tempered, and 7 (1%) were bone tempered.

All but one site (46 or 98%) had grit-tempered sherds present while 10 (21%) had shell-tempered sherds, and 5 (10%) had bone-tempered sherd remains. The one site with grit tempered sherds absent (3PE48) contained only three bone tempered sherds and no other ceramics.

Decoration

The majority of the ceramic remains summarized in Table 5.3 were plain undecorated fragments. Only 27 sherds (2.7% of the total inventory) showed signs of decoration. One bone tempered sherd was decorated and one grit/bone tempered sherd was decorated, and all other decorated sherds were grit-tempered. Five of the decorated pieces were rim fragments (19% of total decorated), and the remainder (81%) were body sherds. A variety of decorative styles were noted with these 27 sherds. Decorations included incising, punctation, mottling, applique, and notching of rims.

It was not possible to assign absolute types to all of these sherds. Many were too fragmentary to be typed, and the others were related to similar known types from sites elsewhere in the Ouachita Mountains. There is no well-developed ceramic typology for the area of the northern Ouachita Mountains in which Lake Nimrod lies. The

types assigned to the decorated sherds, therefore, should be viewed as probable associations, and not for the most part absolute types. Figures 13 through 17 illustrate the decorated sherds recovered in the survey and the typing of these decorations, where possible.

Decorative styles which were noted in the collection include Dunkin incised, Crockett curvilineal incised/punctate, and possibly Haley's and Pease Brushed incised and Pease-brushed applique (Hoffman, personal communication).

HISTORIC REMAINS

Among the historic debris recovered, the glass category was subdivided into glass fragments, and bottleneck fragments with full seams and partial seams. The ceramic remains are grouped into stoneware crockery, hard white ceramics, tiles, and others. The stoneware fragments are further typed into those with Brown Albany slips, blue slips, white slips, and other fragments. The hard white ceramics are grouped into plain and transfer wares, the latter of which are probably datable. Metal fragments recovered are typed into nails, iron remains, and other metal remains.

In Appendix D the general breakdown of artifact groups can be observed. Five sites had glass fragments, two of these with full seam and ½ seam bottlenecks. Fourteen sites had ceramic remains, ten of these had stoneware, 11 had hard white ceramics, and two had a piece of historic tile (most probably used for drainage purposes--see Chapter 2, page 11).

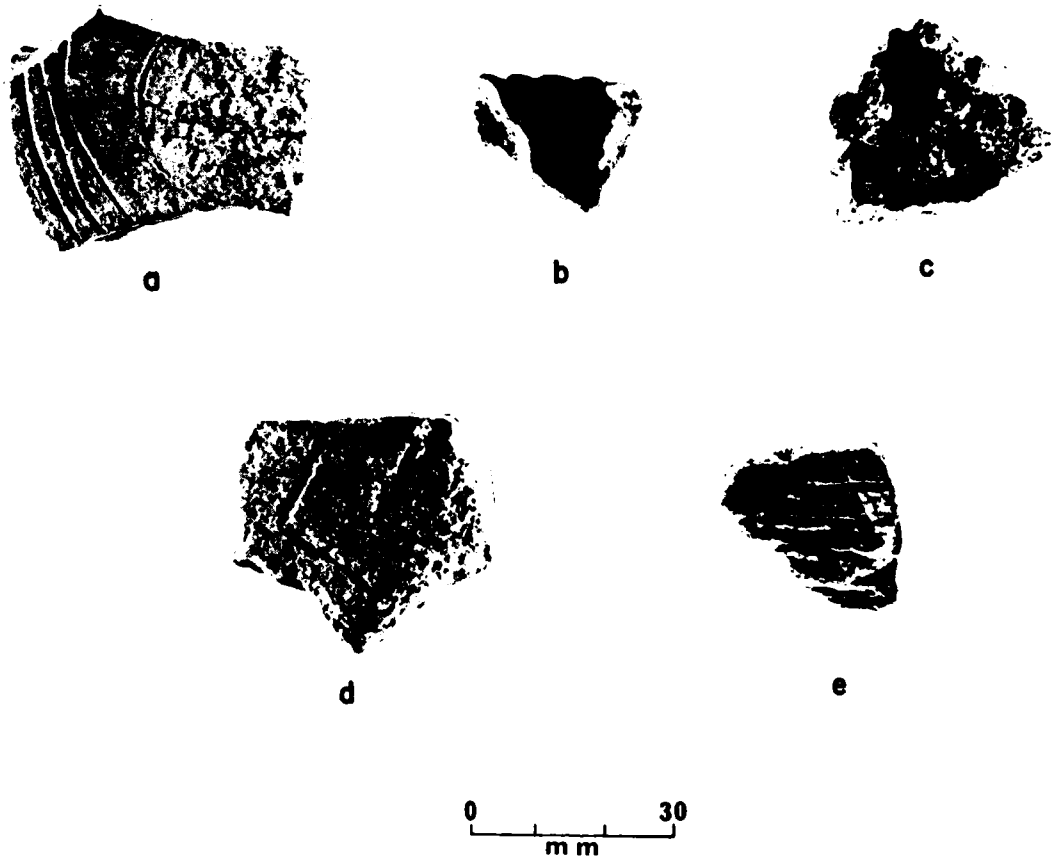

Figure 13. Decorated ceramics from sites 3YE70 and 3YE71.

A. (3YE71) Crockett curvilinear incised
B & C. (3YE70) Notched rims
D & E. (3YE70) Incised ceramics

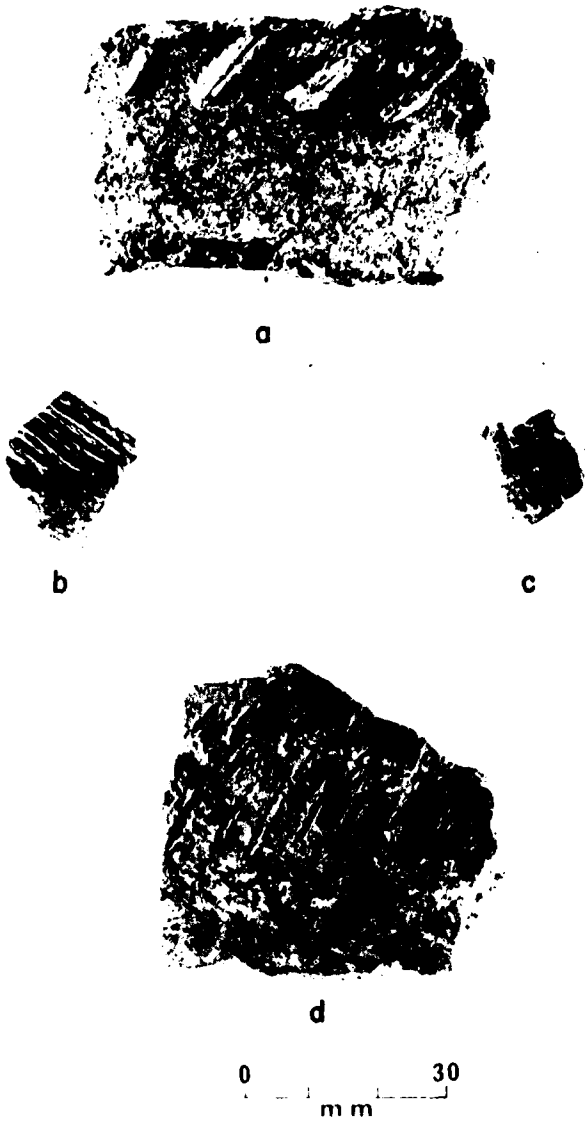

Figure 14. Decorated ceramics from site 3YE210.

A. Applique rim
B & C. Incised
D. Fingernail incised

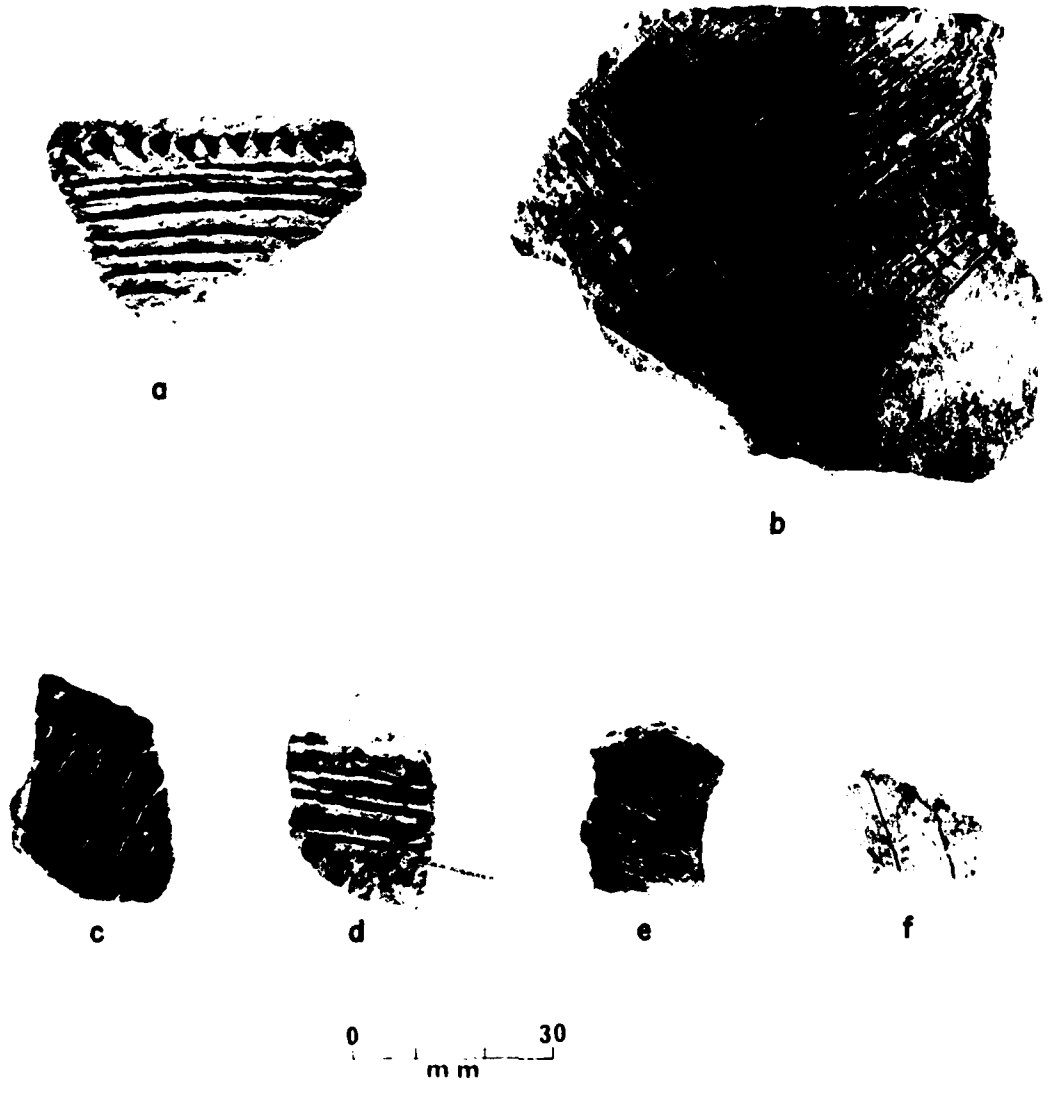

Figure 15. Decorated ceramics from site 3YE213.

A. Decorated rim
B. Dunkin incised?
C. Dunkin incised?
D. Dunkin incised?
E. Dunkin incised?
F. Dunkin incised?

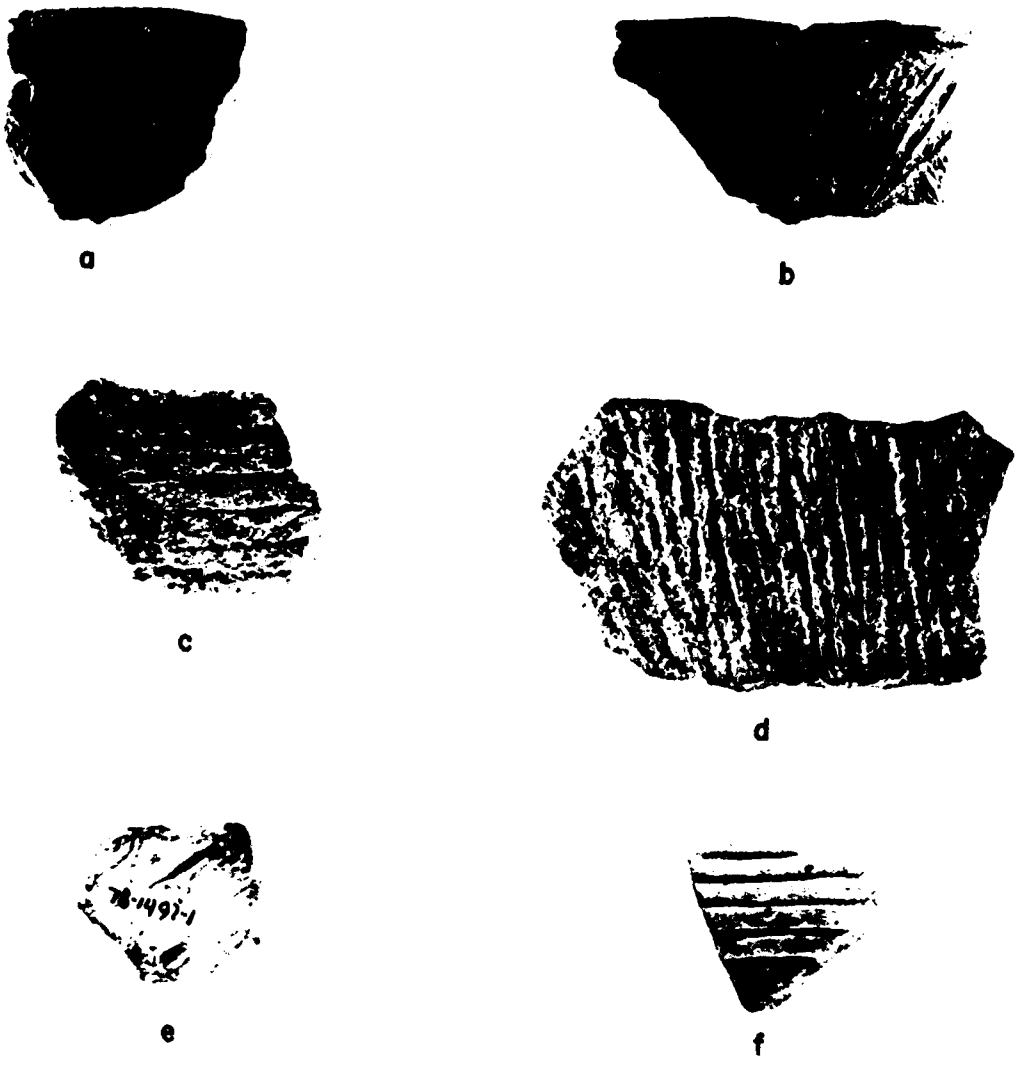

Figure 16. Decorated ceramics from sites 3YE178, 3YE195, 3YE207, 3YE211A, and 3YE216.

A. (3YE207) Dunkin incised?
B. (3YE211A) Dunkin incised?
C. (3YE211A) Dunkin incised?
D. (3YE195) Brushed decoration
E. (3YE178) Fingernail incised
F. (3YE216) Incised

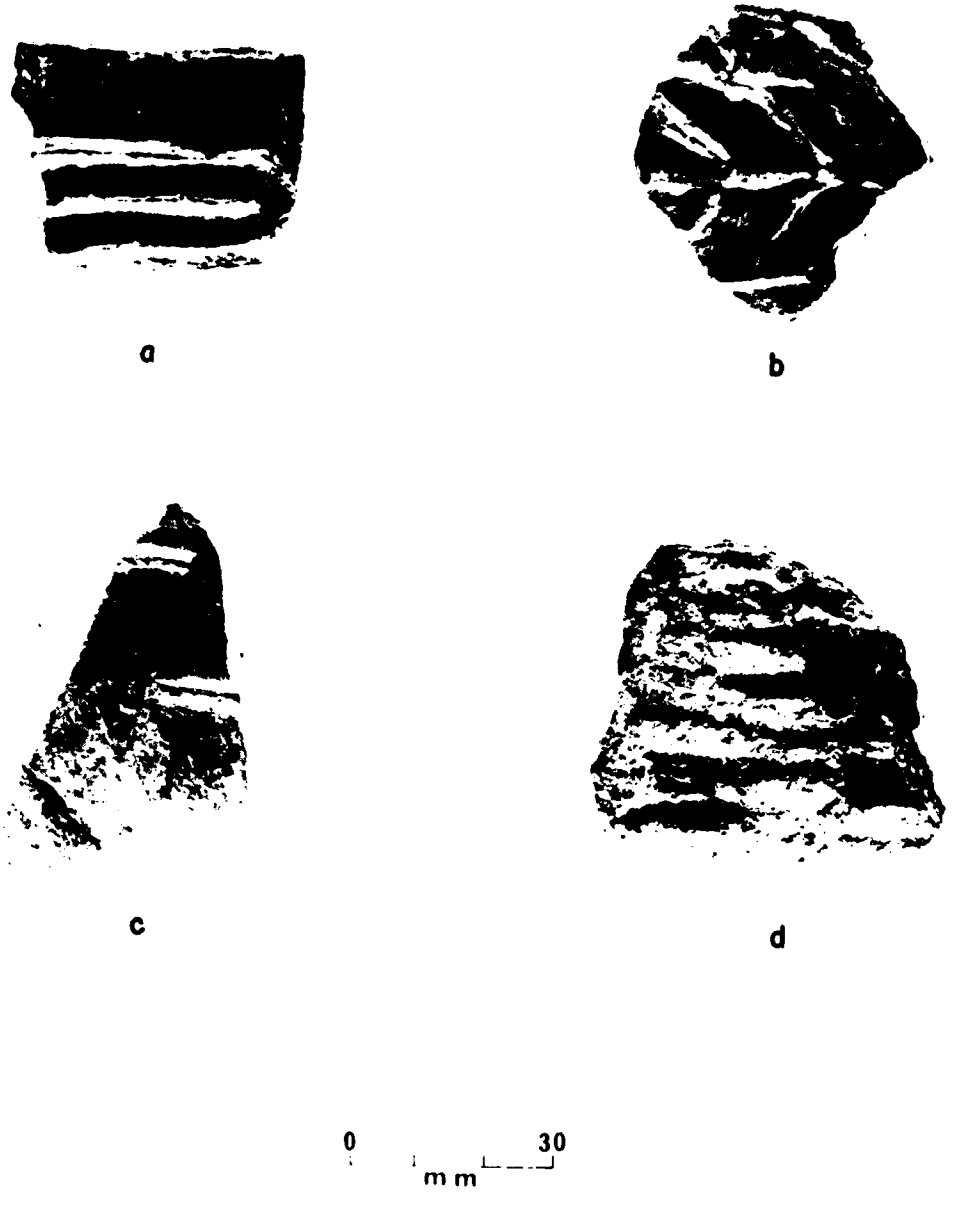

Figure 17. Applique Decorations.

A. 3YE104
B. 3YE216
C. 3YE82
D. 3YE216

Seven sites had remains made of historic metals. Three sites had nails, six were with iron, and two had other types of metal including lead and tin.

In terms of artifact totals, 24 or 103 fragments recovered were glass (23%), 60 were ceramic (58%) and 19 (19%) were metal.

CULTURAL AFFILIATION

Overview

Eighty-three sites (44%) of the total 187 were typed as to chronological affiliation for prehistoric components (Appendix D). Thirty-four sites (18%) were assigned an Archaic affiliation, 52 (27%) were of Woodland age, and 16 (8.5%) had Caddoan components. Eleven sites contained both Archaic and Woodland components; 12 contained both Woodland and Caddoan components, and 3 sites contained Archaic, Woodland and Caddoan components, indicating long term settlement of the site. Eighteen sites (10%) had historic components in addition to prehistoric components. At least four of these may date prior to 1903 or at least 1920. These include 3YE82, 3YE116, and possibly 3YE176 and 3YE177. Several sites were also observed to be in association with prior structures, noted by on the spot observation and by structures noted on COE planning maps drawn prior to dam construction (3YE152 and 3YE197).

Methods of Typology

Estimates of cultural affiliation/chronological placement of sites located at Nimrod Reservoir were ascertained through relative typologies associated with lithic projectile points and prehistoric and historic ceramics. Projectile points are the most diagnostic implements of a lithic collection from prehistoric sites for estimating the chronological placement of the scatter. The projectile points from the Nimrod collections were classified using several books of point typology (Bell 1958, 1960; Perino 1968, 1971), a report by Dr. Michael Hoffman et al. (1977) and the Ph.D. dissertation by Frank Schambach (1970).

There are many problems inherent in attempting to assign a relative date to a lithic scatter on the basis of projectile point morphology. There are few documented point styles from excavated sites in the Ouachitas and nearby areas with chronological sensitivity adequate for providing accurate dates. Present typologies relate certain types of projectile points to overly broad time periods spanning Archaic traditions into Mississippian age cultures. A series of well stratified sites spanning Archaic through Mississippian temporal horizons must be excavated before an effective seriation of points can be achieved.

The presence of ceramic remains at a site provides a relatively good indication of general chronological placement and site function. By virtue of the fact that ceramic inventories are not known for

sites within this area prior to a Woodland time period, all sites with these remains can be safely placed in a Woodland to Mississippian time framework.

The great majority of the specimens within the ceramic inventory are of a plain, grit-tempered ware. From what little is known of the culture history of the area, it is probably safe to assume that many of the plain ware sites are associated with the Fourche Maline phase of the Woodland period. The ceramic type associated with Fourche Maline sites in the northern Ouachitas is a Williams Plain ceramic. Most of the plain, grit-tempered ware recovered appears to be of this type. Sites containing inventories of Williams Plain pottery are therefore assigned a Woodland/Fourche Maline cultural affiliation.

The presence of shell-tempered wares usually indicates a Mississippian chronological placement throughout sites encountered in eastern Arkansas (and other parts as well). The presence of shell-tempered pottery in a ceramic inventory therefore indicates a Mississippian (Caddoan) component for that site. Some decorated ceramics were recognized as being associated with early to middle Caddoan components (Hoffman, personal communication). The fact that most of these remains are grit-tempered indicated a local utilization of grit-tempered ware into Mississippian times by Caddoan groups causing some difficulty in distinguishing between Williams Plain ceramics of Fourche Maline sites and plain grit-tempered wares at Caddoan sites. Sites with shell-tempered sherds and some with decorated sherds were consequently assigned to a Mississippian time period and Caddoan cultural affiliation.

Within the historic remains, half-seam bottlenecks are associated with time periods prior to 1903. Stoneware with Brown Albany slips is thought to date between 1840 and 1920. There are several problems concerning the applicability of a historic typology to historic artifacts recovered at Nimrod. The dates associated with historic artifacts refer to manufacture date and not necessarily to the time of use. Therefore, one must assume that the remains are deposited within a relatively equivalent time framework from their date of manufacture, in order to have much confidence in their relative chronological placement. Finally, the presence of a historic component often may have been the result of recent dumping rather than a primary deposit.

SITE FUNCTION

The majority of sites which received a functional designation were interpreted as basecamps, the remaining being classified as special activity areas (SA), isolated finds (IF), or unknown. Eight sites (4%) were isolated finds, 60 (32%) received specialized activity designations, 106 (56%) were basecamps, and 13 (8%) were unknown with respect to function (Appendix D).

Site function assignments were kept as general as possible in order to avoid an overspecification of behavioral activities which are thought to be inestimable at this level of analysis. A basecamp function is assigned to those collections which indicate that maintenance activities and/or a variety of tasks were performed at

the site. In contrast, special activity sites are those where specific resource procurement or utilization were occurring for short periods of time. An isolated find assignment is given to sites identified by a single artifact and therefore unknown with respect to function.

For those sites represented solely by lithic inventories, a rough estimate of site function was assigned to the collection unit on the basis of the presence of certain artifact types and on the overall variability of the lithic assemblage. The presence of certain artifacts associated with food processing activities, such as nutting stones and grinding stones and the presence of curated artifacts are indicative of basecamps. Curated stones are ones which will be kept and reused until broken or discarded at the end of their use life. Most groundstone tools tend to be curated as do projectile points, adzes, axes, and drills, all of which were found in the lithic inventories.

Nutting stones may function both as nut processing tools (a maintenance function) and as anvils for bipolar flaking of chert nodules in artifact manufacture. In either case, it is expected that these items will be curated and will tend to be found in camp refuse. Another measure of basecamp function comes from a high artifact variability found within a single site inventory. The presence of a number of different artifacts indicating the performance of several activities (e.g., manufacture, food processing, other

general maintenance activities) is also thought to be more likely representative of a habitation unit than of the locus of some specialized activity.

All sites with ceramic components are assigned a basecamp function. This designation is made on the grounds that: 1) ceramics are most typically associated with cooking and food processing activities which are normally associated with habitation sites; and 2) that ceramic wares, like certain lithic artifacts, are curated objects not discarded until having reached the end of their use life, and tend to be associated with habitation sites.

Special activity sites tend to be smaller areas of dispersion occupied for a relatively short time, yielding fewer artifacts indicating maintenance activities, and showing little variability in artifact type. Such sites may be the remains of short term kill or butchering sites, or even artifact manufacturing sites. Any further designation other than specialized activity would be greatly over-stretching the data at hand. Also, given the reoccupation of areas over time, specialized activity sites would be masked by the subsequent presence of a basecamp in the same area.

SITE SIZE

The extent of the dispersion of cultural material over a given area (termed "site") varied considerably from loci to loci at Nimrod Lake. The smallest sites were isolated finds, with no dispersion of material. Besides the 8 isolated finds, sites ranged from 10 m^2 to

as large as 45,000 m^2. In many cases, site size correlated with the site function. For example, basecamps cover a much larger area than specialized activity sites, even though there was variability in site size among the sites assigned a basecamp designation at Nimrod. This range in size may simply reflect a continuum from small single family habitation units to larger seasonal camps, to large villages, which may have been occupied for the greater part of the year.

The multicomponent sites of Archaic/Woodland/Caddoan affiliation, which were reoccupied over long periods of time, were the largest sites averaging 18,000 m^2 in extent of material dispersion. The average size for camps of both Woodland and Caddoan age approximate 5,000 m^2, while sites of Archaic and Woodland affiliation average 1,700 m^2. The average dispersion for Woodland and/or Archaic single component sites on the other hand was less than 1,000 m^2 in size, while 10 of the 16 (63%) of the measurable single component Archaic sites were less than 500 m^2 in size. Six (38%) of these were 100 m^2 or smaller. See Appendix D for an inventory of site sizes.

The trends in size, therefore, show the smallest sites to be of Archaic affiliation, with tendencies towards larger sites as cultural systems grew and became more complex over time. The largest sites within the inventory are those which in addition to being multicomponent appear to be loci of large villages assuredly associated with the practice of agriculture. It is important to note that as site size was estimated from the maximum dispersion of surface material, natural processes which may affect visibility such as erosion,

redeposition, and siltation, could have altered size and configuration of sites.

SITE LOCATION

The region surveyed during the Nimrod project was primarily the immediate floodplain of the Fourche La Fave. Therefore, with regard to any environmental region, one may regard the features within that region to be relatively homogeneous or heterogeneous depending upon what scale is employed in the evaluation. For instance, the portion of the Fourche La Fave drainage now inundated by the Nimrod Reservoir is seen as a relatively homogeneous unit within the northern Ouachita region as a whole. If we reduce the scale of the investigation to the limit of the reservoir, however, and examine microenvironmental units within the region, then the survey unit becomes somewhat heterogeneous in nature.

The following presentation and discussion relate to a microscale approach to the survey unit at Nimrod. At this level, differences in terrace association, soil groups, and elevation may become apparent even though these units are relatively homogeneous. The purpose of the following presentation is an attempt to isolate any differences in site location with respect to cultural affiliation and function within the survey unit. If such differences can be demonstrated, associations may be generated which can provide us with some notions of the variety of aboriginal behavior within the floodplain of the Fourche La Fave.

Physiography

The total distribution of all sites within the survey area is spread fairly evenly among the physiographic features. Slightly over half of the sites (95 - 51%) occurred along the edge of stream terraces while 90 (48%) occurred along the edge of river terraces, and 1% occurred on the first terrace away from direct association with water. It is apparent, therefore, that with respect to general site location, terrace edges of rivers and streams had a significantly greater number of sites than any other physiographic feature. Practically no sites were found away from direct association with water (Table 1).

A few distinctions can be ma e with respect to physiographic placement and general cultural affiliation recorded at sites. In examining single component Archaic and Woodland sites there were differences in both river and stream terrace associations. Twelve (57%) of Archaic sites were located on river and stream terraces west of Carter Cove, while 4 (15%) Woodland sites were found there. Seven (33%) of the Archaic sites were found along stream terraces west of Carter Cove while only 3 (11%) of the Woodland sites were found there, and these were at the eastern extremity of the western zone. On the other hand, 7 sites (26%) of the Woodland inventory were found on the first river terrace edge east of Carter Cove while only 1 (5%) Archaic site was found there. Also 11 (41%) Woodland sites were located on stream terraces associated with the first river terrace and only 2 (9.5%) of the Archaic sites were

located there. Both types of sites were fairly evenly distributed with respect to second terrace associations.

Table 1. Physiographic features and types of prehistoric sites

	All Sites		Archaic		Woodland		Archaic/ Woodland		Woodland/ Caddoan		Archaic/ Woodland/ Caddoan		Historic	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Sample	187	100	21	100	27	100	9	100	13	100	3	100	18	100
RT1	30	15	1	5	7	26	1	11	9	69	3	100	6	33
RT2	35	18	4	19	5	19	2	22	2	15			4	22
RTM	21	11	4	19	2	7	3	33	3	23			4	22
RTW	19	10	1	5	1	4	1	11						
STW	35	18	7	33	3	11								
STF	38	19	2	10	11	41	4	44	2	15	2	66	6	33
ST	22	11	2	10	3	11			3	23			6	33
FP	2	1			1	4								
# of Confluence					6	22	3	33	5	38	2	66	8	44

KEY: RT1 = First terrace edge
RT2 = Second terrace edge
RTM = Terrace edge of meander channel
RTW = First terrace edge, west of Carter Cove
STW = Stream terrace edge, west of Carter Cove
STF = Stream terrace edge on first river terrace east of Carter Cove
ST = Stream terrace edge on second river terrace east of Carter Cove
FP = First river terrace, away from direct associations with water

NOTE: Due to the association of two physiographic features with individual sites, the relative percentages presented above will not total 100% in every case.

The relative site frequencies should be cross measured with the absolute numbers in each cell for the best intuitive measures of distinction.

The primary distinction indicated by terrace association assigned to Archaic and Woodland single component sites, therefore, is that Archaic sites occurred most frequently at the western edge of

the reservoir, and to a lesser extent in association with the second river terrace, while only 14.5% of the single component Archaic sites were found in association with the first terrace floodplain east of the Carter Cove area. In contrast, 78% of single component Woodland sites were found in association with the first terrace floodplain to the east. Furthermore, these distinctions appear to be valid in that the important relative frequencies of site physiographic location would not be significantly altered by lumping all Archaic and Woodland aspects of multicomponent sites into the inventories just assessed.

The majority of the multicomponent sites found were distributed throughout the eastern end of the reservoir and within the floodplain of the first terrace. Only 3 (12%) of these sites were found west of the Carter Cove area and only 5 (20%) were in association with the second river terrace. On the average over one-third of all multicomponent sites were found at confluences, and although 22% of the single component Woodland sites were at confluences, no Archaic sites were thus situated.

The major differences in terrace association among the multicomponent sites are seen in first terrace placement. The Woodland/Caddoan and Archaic/Woodland/Caddoan sites concentrate along the present terrace edge of the Fourche La Fave River, while most Archaic/Woodland sites were found along stream terraces on the first river terrace, but rarely on the river edge itself.

Soil Associations

For the most part, the frequency of soil type and site association is a function of the type of area surveyed, i.e., a reservoir bottom. The majority of the survey area (77% of the sites) had first bottom soils of the Pope, Atkins, and Casa series. Of the remaining sites, 15% were associated with the Waynesboro (second bottom) series, and 8% were associated with the upland soils of the Hanceville and Conway series (Table 2). See Appendix D for a inventory of each site.

There appear to be no clearcut distinctions between single component Archaic and Woodland sites with respect to soil association, except perhaps that more Archaic sites (4, 19%) occur on the Pope fine sandy loam than do Woodland sites (2, 8%). Furthermore no multicomponent sites were found on this soil, and only 16 (8.5%) of all sites recorded at Nimrod were associated with the fine sandy loam.

Multicomponent sites were most commonly found on the Pope silt loam and to a lesser extent on the Atkins loam. Of those sites with Caddoan components, 75% were found on Pope silt loam, which was expected, as this is the major soil associated with the first bottoms of the present Fourche La Fave terrace.

The most distinguishing characteristic of site association with soil type may simply be the paucity of sites located on the fine sandy loams of the Pope, Casa, or Waynesboro series. Of the first and second bottoms soils, only 21 sites (11%) of the total at Nimrod were located on fine sandy loams, while near 80% were found on loams or silt loams.

Table 2. Soil associations and types of prehistoric sites

	All Sites		Archaic		Woodland		Archaic/ Woodland		Woodland/ Caddoan		Archaic/ Woodland/ Caddoan		Historic	
Soils	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Sample	187	100	21	10	27	100	9	100	13	100	3	100	18	100
Ps	88	47	12	57	12	44	4	44	9	69	3	100	6	33
Pf	16	9	4	19	2	8							1	6
Al	35	19	4	19	6	22	2	22	1	8			1	6
Ac	13	7			3	11	1	11	1	11	1	8	4	22
Cf	4	2							1	8			1	6
Wf	1	1												
Wl	27	14			3	11	1	11					4	22
Hl	6	3			1	4								
Cl	10	5	1	5			1	11	1	8			1	6

KEY: Ps = Pope silt loam
Pf = Pope fine sandy loam
Al = Atkins loam
Ac = Atkins clay
Cf = Casa fine sandy loam
Wf = Waynesboro fine sandy loam
Wl = Waynesboro loam
Hl = Hanceville loam
Cl = Conway silt loam

NOTE: Due to the presence of two soil types associated with individual sites, the relative frequencies cited above will not equal 100% in every case.

Elevation

Land surface elevations were relatively homogeneous throughout the Nimrod survey area. The lowest elevations occur near the river in the floodplain east of Carter Cove, and for the most part on the north side of the channel. The highest elevations occur at the western end of the reservoir where the river slope gradient is steeper, on the second river terraces or flood terraces, and also along the south side of the river channel.

The majority of sites (111, 59.35%) fall within the 340-343 feet AMSL range while 52 or 33% were in the 330-335 range (Table 3). Since this survey area was to a large degree defined by elevation boundaries of 330-343 AMSL, these high site frequencies associated with these elevations are expected. Only a few sites (11, 5.9%) fall in the 350 range and 360+ range (3, 1.6%). Most of the multi-component sites are distributed among these lower elevations, which reflect locations along the edge of the first river terrace in the floodplain; and all Caddoan affiliated sites fall in this 330-342 range. The major distribution which can be seen between single component Archaic and Woodland sites is that more Archaic sites (14 or 66%) occurred in the 340-342 range than do Woodland sites (10 or 37%) and more Woodland sites, 19 (49%) are found in the 330-335 range as opposed to Archaic sites (4, 19%). Also 3 Archaic sites (15%) are in the 350 range while only 1 Woodland component site was found at those elevations. In short, the Archaic sites seem to cluster at higher elevations than do Woodland sites. This may very well indicate that the presence of more Archaic sites west of the Carter Cove area where the elevations are generally greater, an observation previously noted with respect to physiographic placement.

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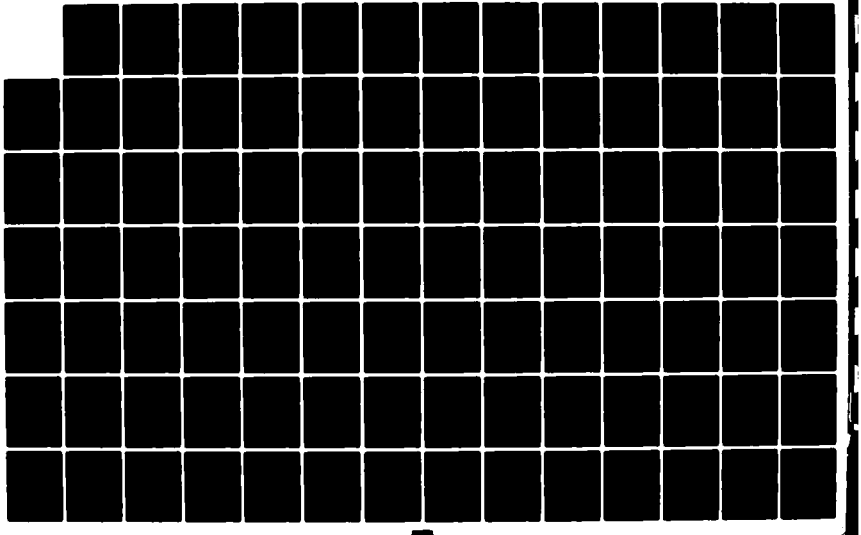

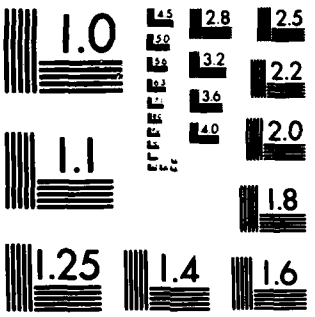

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Table 3. Elevation and type of site

Elevation in feet AMSL	All Sites		Archaic		Woodland		Archaic/ Woodland		Woodland/ Caddoan		Archaic/ Woodland/ Caddoan		Historic	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Sample	187	100	21	100	27	100	9	100	13	100	3	100	18	100
330-342	62	33	4	19	16	59	4	44	8	62	1	33	9	50
340-342	111	60	14	67	10	37	4	44	5	39	2	66	8	44
350	11	6	2	10	1	4	1	11					1	6
360	3	2	1	5										

OVERVIEW

The Western and Eastern Halves of the Reservoir

The portion of Nimrod Reservoir located west of the Carter Cove area is qualitatively different from the more eastern sections of the the lake. Within this area the reservoir is confined to the preexisting river channel. Environmental factors which are most characteristic of this area are high terrace banks, absence of broad, low lying floodplain, and relatively steeper gradient of channel elevation.

The western end of the reservoir basin contained 67 sites (36% of the total inventory). Settlement in this area centered on stream terraces (50% of sites), river terrace edges (30%) and along the old meander channels (20%). Among sites in this area which have been assigned a chronological placement, single component Archaic sites predominated. Fifty-seven percent of single component Archaic sites were found in this area, as were 335 of Archaic/Woodland double

component sites. Only 15% of Woodland sites and 8% of Woodland/ Caddoan sites were found there.

East of the western boundary of Carter Cove, the reservoir opens into a broad floodplain. Settlement within this area centered on the first and second river terraces and along stream terraces.

In general the largest sites are located along the edge of the present river terrace. A distinction can be made with respect to site distribution along the north and south sides of the channel. Along the northern edge of the channel are found a number of sites of varying size. Along the southern side, fewer sites are found, but these are larger and have more dense artifact distribution than those to the north. Within an area bordered on the west by Anderson Branch, and to the east by Carden Creek, three sites cover areas exceeding 75,000 m^2. Two of these sites yielded the largest ceramic inventories of the survey, and two contained the greatest concentration of lithic remains observed within the reservoir.

A large number of sites were also found along a stream terrace associated with the first river terrace, north of the channel. The majority of these sites assigned cultural and functional placement were interpreted as small (average 400 m^2) Woodland basecamps.

In contrast to first terrace edge dispersions, sites along second terraces tended to be smaller, and rarely produced ceramic remains. This physiographic zone also has more specialized activity sites than other areas within the reservoir. It should be noted,

however, that the smaller size of sites within this area is likely due to obscured visibility on the surface of the second terrace.

The occupations along the second terrace edge may reflect 1) earlier settlement by Archaic and early Woodland groups when the river ran closer to the north shoreline of the lake; 2) seasonal occupation during flood seasons by groups normally living along the first river terrace; or 3) selection for ecological characteristics relating to floral and faunal propensities or some other aspect of subsistence.

Due to the variability of culture types located on the second terrace, and the fact that resources indigenous to the second terrace zones should be easily obtainable from any habitation site within the first terrace, a tentative suggestion is made that many of the sites located along the second terrace edge may indeed reflect the temporary seasonal camps during flood periods, or perhaps during any period where the soils of the first terrace are poorly drained.

CULTURAL PREFERENCES

Generally speaking, most Archaic sites were found 1) on river or stream terraces west of the Carter Cove area where the elevations are greater, the gradient steeper, terrace banks higher, and there is an absence of low lying seasonally flooded river bottoms; 2) on second terraces in the lower floodplain east of Carter Cove; and 3) on stream terraces, in association with second terraces. In general all of these areas were greater in elevation and probably less

frequently flooded. There also seems to be little importance placed upon living adjacent to resources located in the first terrace of the floodplain.

Conversely, most Woodland sites occurred in the lower areas east of Carter Cove, along the first river terraces, and to a great extent along stream channels cutting through the floodplain.

Sites with Caddoan components were concentrated along the first river terrace edge east of Carter Cove. Most of these sites have been extensively occupied, are likely to be multicomponent, and occur on slightly higher expansive floodplain areas.

In most cases, the large village type habitation sites tended to be multicomponent and were located along the present day river terrace in the floodplain east of Carter Cove. River bars constructed along a sharp meander and to the south side of the river channel seemed to be select spots for continued and intensive habitation. This may reflect both a utilization of riverine resources and fertile soils for agriculture. Along the south shoreline, the tendency was towards a few large sites reflective of very intense occupation. This may reflect selection of areas less frequently flooded for year-round habitation sites.

All Historic sites were located east of the Carter Cove area, on the most commonly occurring soils and elevations. The most distinguishing characteristic of their distribution was a tendency towards placement near the second river terrace. It is tentatively assumed that this reflected a need to escape the flood waters of

small overflows from the Fourche La Fave. This also agrees with the comment found in Chapter 3, which places early historic agriculture and settlement along the second river terrace.

CHAPTER 7

SUMMARY, SIGNIFICANCE, AND RECOMMENDATIONS

Summary

In general, Nimrod basin is seen as an area of relatively intense settlement in prehistoric times and in late historic periods as well. The majority of sites located were interpreted as habitation units, which more or less agrees with tentative ideas of settlement in mountainous areas dissected with fertile river valleys. Association with nearby water sources appears to be a key variable in placement of habitation sites in these environmental zones.

It can also be said that all portions of the Fourche La Fave Valley now inundated by Nimrod Lake were occupied or utilized to some extent by aboriginal groups in prehistoric times. The major differences in settlement which were observed in the valley suggested a slightly different emphasis on selected areas of occupation between Archaic and later periods and between small base camps and larger village units. In general, Archaic groups appeared to show a heavier utilization of areas west of Carter Cove with higher elevation and higher river and stream terrace banks, and to a lesser extent along the second terrace of the Fourche La Fave. Woodland and Caddoan groups, on the other hand, appeared to begin selection for areas within the low lying, silt loams of the first terrace floodplain, which occurs east of the Carter Cove area. This may be tentatively interpreted as indicating an interest in the areas of fertile soil for agricultural purposes. Within the low lying floodplain there appears to be a tendency for the larger village

sites to occur along the terrace edge of the river. The largest of these is on the south shoreline, which is generally higher in elevation, while stream terraces within the first river terrace zone appear to be selected areas for smaller base camps in the Woodland period.

The conservation pool edge is thought to reflect the remnants of a second river terrace which acted as a deterrent to floodwaters exuding from the river during rainy seasons. A large number of sites were found eroding from the present day edge of the conservation pool. These sites are very tentatively interpreted as being seasonally occupied during times of flooding.

Previous work done in the Ouachitas (Imhoff and Mathis 1976; Imhoff 1976; Ray et al. 1976 ; and Martin 1978) have suggested a dichotomy between lowland river valleys as areas of habitation and more mountainous upland areas, as places for securing raw materials. This model is partly supported by the intense distributions of base camps within the survey area. It should be pointed out, however, that such a pattern of settlement would in no way be fixed or absolute. It is expected that a variety of activities could take place in practically any environmental zone. This is the case at Nimrod, in that specialized activity sites are also located in the floodplain. This is also in agreement with Martin (1979) who states that in the mountains traversed in the Fancy Hill project, many base camps were discovered along with loci for resource procurement. It is apparent, however, that a tendency towards any upland/resource procurement and lowland/base camp settlement pattern may exist in the Ouachitas. Only future work will provide new clues.

Utilizing an areal approach in discussing significance is not meant to ignore the assessment of significance at a site level. Simply, until further testing is carried out explicit measures of significance (and subsequent nomination to the National Register of Historic Places) for an individual site cannot be performed. A large number of sites, however, are considered worthy of further investigation in the form of subsurface tests. Any given site recorded during the survey has the potential to yield additional information through testing, although there is no guarantee that any subsurface deposits or features will exist. If these sites do contain well stratified deposits of cultural materials, nomination to the National Register would be a distinct possibility. Recommendations for various levels or stages of testing of other sites are presented in following sections.

RESEARCH QUESTIONS FOR FUTURE STUDY

Future research within the project area can be grouped under three general headings, ranging from analysis at a site level, to project area level, to a regional research area level. The results of each level of analysis, however, would easily integrate into each of the other areas. For example, an artifact typology derived from the excavation of one or two sites would surely be applicable in the whole project area and beneficial to a regional typology for the northern Ouachitas as a whole.

One question which could be gainfully approached at Nimrod would be the development of a local and regional typology for artifact groups.

Significance of Cultural Resources

Measures of significance of cultural resources can be made on several levels. In presenting an assessment of the significance of the resources within the conservation pool of Nimrod Lake an area approach is most logically employed. In terms of a survey unit the resources recorded at Nimrod are highly significant. Given the site density encountered, this portion of the Fourche La Fave drainage has the potential to provide more information on riverine settlements in the northern Ouachitas than any other similar area, particularly because of exposure of sites when the water level is down. This potential information would also be applicable to studies of river basins elsewhere, and in directing research, methods, and goals in similar surveys.

At many physiographic features within the survey area, the density of sites within a unit of space (e.g., along a stream terrace) might suggest extensive synchronic occupation of this area by a single aboriginal group. In that instance, assessment of significance and future research efforts would, therefore, be better directed towards that unit of space than towards a specific artifact cluster within that space.

One could also, at one level, consider the project area as a whole, a very significant unit of occupation. This portion of the river valley may possess special characteristics which were repeatedly selected by aboriginal groups who were after the same end goal. The nature of settlement throughout the project area could be as important to a regional plan and research design as the recovery of a plethora of artifacts from a single site.

This would require the excavation of one or more well stratified sites within the basin. Subsumed under the subject of typology are a series of more specific questions which could be approached. One may include inquiries into the production life of various diagnostic artifacts, in particular projectile points, which presently are noted to span Archaic through Mississippian time periods. Another might be to better ascertain the nature of the ceramic inventories present at some sites, e.g., are they Fourche Maline? Furthermore, are Fourche Maline groups in fact the only regional Woodland period culture from which Caddoan culture arose in the northern Ouachitas?

A second area needing further research is a more thorough examination of site components and site distributions within the area of the inundated bottoms. In general, it would be profitable to know the nature and extent of Archaic, Woodland, and Caddoan components of basecamps and specialized activity areas within the project area. The location of these components in terms of physiographic association may yield new information pertaining to settlement and subsistence patterns of aboriginal occupations within the basin. This research would be necessary to better assess the significance and potential destruction of individual sites.

One pertinent question which could be examined within this approach relates to whether differences in site distribution between first and second river terraces reflect seasonal settlement patterns by aboriginal groups, i.e., settlement on the first terrace floodplain most of the year and on the second terrace during flood seasons.

Another important research question is why the largest sites, and those with the most ceramics, occur on the south side of the river? Is this selection for higher elevations and/or protection, or is it simply that river bars are optimal locations for village sites?

In addition to examining settlement and subsistence patterns within the survey area it is important to apply information which is gained at Nimrod to a larger areal context; i.e., the northern Ouachitas. One can ask how the information gathered from Nimrod compares with other upland areas. Is the upland/lowland subsistence dichotomy, suggested in Chapter 6, supported to any degree? If so what is the variability which exists within each environmental unit and where do overlaps occur?

In short, the ultimate goal of an archeological investigation is to apply the data recovered to larger areal contexts to obtain a better overall pattern of aboriginal behavior in a more meaningful unit of space and time.

RECOMMENDATIONS

The nature of the survey conducted during the drawdown of Nimrod Lake was different from other archeological surveys in that its role was to assess cultural resources which have already suffered direct impact through inundation for 36 years. The history of Nimrod Lake therefore must be included in the formulation of recommendations for the preservation and/or retrieval of significant archeological resources in the basin. It is obvious that no matter what the

recommendations offered, the cultural resources presently submerged under the reservoir will remain there (unless, of course, they are removed by archeologists through mitigation or by relic collectors). Also, given the fact that much of the archeological record contained in submerged sites will eventually be lost to erosional activities if some measure of protection is not taken, coupled with the quantity of potentially significant sites, it will be impossible to alleviate completely the loss of information due to inundation in the future. The COE cannot stop the natural destruction at every site which shows signs of erosion. In the future (next drawdown), therefore, measures must be taken to assess the significance of as many sites as possible and determine the extent and nature of destruction due to erosion and other impacts on these sites. Following this assessment, further measures must be taken to protect and/or mitigate the significant sites from as many adverse effects as feasible, basing priorities upon questions appropriate to the regional research plan.

Additional Survey

An intensive survey is proposed in order to sample the nature of settlement and site distribution across all environmental zones within the COE Nimrod project area. It was noted in Chapter 2 that the survey area of the Nimrod project basically contained only one environmental province, a river valley and first bottoms. Although we can discuss settlement within the valley, information from second

terraces and upland areas is needed to get an overall picture of aboriginal behavior in the northern Ouachitas, and consequently, to ask more relevant questions for future research and also to have a more solid base from which to assign significance to sites within the project area.

A second reason for further survey work in the area is of even more direct interest to the COE. The survey performed at Lake Nimrod included only areas normally under the waters of the lake. It will still be necessary for the COE to obtain archeological evaluation for any construction which may be performed in recreation areas or other areas of the COE property not covered by the survey.

For instance, areas adjacent to the lake boundaries at Sunlight Bay Recreation Area (Figure 19) are all included in the COE planning unit as areas of intensive future development by the COE (U.S. Army Corps of Engineers 1966). Archeological resources were found along the edge of the conservation pool near these locales. An intensive survey is needed at these areas prior to the initiation of <u>any</u> construction or other potentially destructive activities.

One other of the proposed recreation areas is due further consideration relating to the management of cultural resources there. An area surrounding Brush Creek, located on the south shoreline of the lake is proposed for future development. As this creek enters the lake, it is bordered on both sides by areas of dense artifact concentrations. Portions of these areas are also

subject to periodic exposure when the lake levels are at their minimum. Measures must be taken to assess and mitigate (if necessary) the resources which may be destroyed by either construction within the area or through the activities of local collectors.

Stage 1 Testing

Stage 1 of cultural resource management within the survey area would include extensive testing of a number of sites within the lake. The goals of this approach will be to evaluate the nature and extent (horizontal and vertical) of the cultural resources associated with a given site, to assess potential for further information recovery, i.e., presence of undisturbed subsurface deposits, and to assess the significance of individual sites to determine eligibility for nomination to the National Register of Historic Places.

A large number of sites are considered worthy of testing. Given the selection of sites available for further investigation, it is suggested that the testing program examine as many sites as feasible, but given the impossibility of testing all sites, to stratify the selection of sites by several possible divisions.

First, it is important to assess the extent of site destruction at any conspicuously eroding site. Aside from this consideration, however, selection might be stratified by site cultural affiliation and location with respect to physiographic zones. Such an approach would yield a better evaluation of the intensity of site distribution 1) within the project area as a whole; 2) within a smaller area unit, deemed potentially important as units of space to the researcher;

and 3) along specific physiographic provinces, e.g., river and stream terraces. A rather cursory presentation of research priorities associated with this approach can be found in Appendix B. The proposals made therein reflect an absolute minimum level of testing in order to establish significance of sites in the project area.

Stage 2 Further Testing and Mitigation

Stage 2 research would include the more extensive testing and/or excavation of those sites which indicated potential for yielding significant new information for the project area and the larger research area.

The selection of sites for mitigation should be based upon: 1) critical evaluation of potential site destruction by erosion, giving priority to those sites in the greatest danger of destruction; and 2) the needs and goals of the research interests of the archeologist performing mitigation and of the research design for the northern Ouachita region.

It might be added at this point that a cross disciplinary study of geomorphology and archeology could be performed concurrently with Stages 1 and 2. Such an undertaking would yield valuable and necessary information relating archeological resources to the true nature of physiographic provinces, which at best are difficult to discern. For instance, the reconstruction of remnant terrace systems throughout the lake area could add valuable insight to interpretation of the archeological resources therein. Such a study

would make it possible to judge past ecology within the survey area, e.g., river behavior in relation to construction of river bars and potential erosional removal and redeposition of cultural resources within the lake. A better evaluation of information loss resulting from lake inundation would also be possible, as would the creation of more effective measures to stop site destruction due to natural forces. Such a study would be of considerable value to the Corps because it would aid in determining whether inundation is a protective or destructive mitigation technique.

Protection

Several suggestions are presented to help alleviate loss of archeological information in this lake area. During drawdowns and/or flood periods, maintenance of lake level is important. It may also be important, however, to perform this task by instituting as few rapid changes in lake elevation as possible. Chapter 5 includes a discussion which suggests that the rapid rise and fall of lake level may increase erosional processes on the sites therein.

Secondly, a most important task is to monitor erosion of terrace edges of streams and the river west of Carter Cove, and along the shoreline of the conservation pool in areas east of Carter Cove. Sites were noted to be eroding from each of these areas. Any measure which might stop this erosion where archeological deposits occur would be of tremendous value. Furthermore, similar monitoring and protection of all areas of erosion may be undertaken at times of excessively low pool

level or drawdown. Such measures would be included under the stage of investigation recommended for future management of the cultural resources at Nimrod.

Thirdly, measures should be taken to prevent further removal of cultural resources by the general public. The problems and unfortunate implications of this destructive force were discussed in Chapter 5. Several suggestions are offered which may aid in performing this task: 1) in conjunction with the Arkansas Archeological Survey, make an effort to educate the public as to the nature of the archeological resources, the destruction which is inflicted upon the archeological record by collecting artifacts, and the federal laws protecting such resources; 2) inform the archeologists at least three months before the next drawdown so that they can begin work immediately and be prepared to deal with local collectors through education and high visibility at the lake; 3) issue citations to collectors early in the drawdown process to dissuade many individuals from collecting archeological resources there. This might especially dissuade the individual who only began searching after being informed that artifacts are present in the lake, either through newspaper articles or signs which request people not to remove cultural materials from the lake areas.

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APPENDIX A

SCOPE OF WORK

Archeological Reconnaissance Survey
Nimrod Lake, Arkansas

Scope of Work

1. The Contractor shall furnish all materials, equipment and supplies, labor, transportation, and services required to conduct the cultural resource survey with limited testing on Nimrod Lake, Arkansas. The survey will include all exposed areas of the lake under Federal ownership. (Adrawdown for fishery management purposes will expose approximately 2,500 to 2,800 acres that have not been previously surveyed.) A report of the findings will be furnished this office 49 calender days after notice to proceed.

2. The principle investigator will be responsible for all work performed and will be the contact between the Contractor and the Contracting Officer or his representative.

3. The draft report shall contain:

a. Methodology - professionally acceptable scientific and contemporary techniques are to be employeed in the collection of cultural resource data and should confirm to current scientific standards, and should be reported in the draft and final copy of the report.

b. Significance of each site with national register nomination forms completed if appropriate.

c. A descriptive paragraph of each site and potential for additional scientific data.

d. Recommendations for additional survey and data recovery, if appropriate.

e. Effects of project operations on the site.

f. Recommendations for site preservation and protection.

4. The drawdown schedule is as follows:

Date	MSL	Exposed land
5 September 1978	342	---
1 October 1978	332	2,570 acres
1 December - 1 January 1979	330	2,840 acres
1 January 1979	refill as rain permits	

5. The Contractor will coordinate with the Nimrod-Blue Mountain Resident Office and the Arkansas Game and Fish Commission.

6. Materials collected will be deposited at the Arkansas Archeological Survey Coordinating Office, University of Arkansas. These materials which belong to the U.S. Government will be available to the Corps upon request.

APPENDIX B

PROPOSAL

PROPOSAL FOR AN ARCHEOLOGICAL RECONNAISSANCE SURVEY OF NIMROD LAKE, YELL COUNTY, ARKANSAS

Submitted to: Little Rock District
U.S. Army Corps of Engineers
P.O. Box 867
Little Rock, Arkansas 72203

Submitted by: Arkansas Archeological Survey
Coordinating Office
University of Arkansas Museum
Fayetteville, Arkansas 72701

September 1978

PROPOSAL FOR AN ARCHEOLOGICAL RECONNAISSANCE SURVEY
OF NIMROD LAKE, YELL COUNTY, ARKANSAS

Construction of Nimrod Lake, in the northern Ouachita Mountains, was completed in 1942. At that time there were no relevant federal regulations pertaining to cultural resource management and therefore no archeological work was done in the area prior to inundation. Since a drawdown of the lake level for fish management purposes is being conducted at Nimrod Lake during the fall of 1978, an opportunity is present to conduct an archeological reconnaissance of the area in order to record any archeological sites that may have been inundated, but not destroyed, by the construction of the lake.

At the time of the preparation of this proposal the drawdown had already begun. Arkansas Archeological Survey staff recently inspected the lake and found that the area is in prime condition for archeological reconnaissance. There is no vegetation covering areas which need to be surveyed, as was the case of the project at Blue Mountain Lake (Padgett 1978:1). During this inspection of field conditions, 4 archeological sites were recorded indicating that site visibility and site density may be quite high for the Nimrod project area.

According to the Scope of Work issued by the Little Rock District of the Corps of Engineers office, a maximum exposure of 2,840 acres will exist by December 1978. The attached budget has been developed based on the maximum survey area.

The drawdown schedule as presented in the Scope of Work indicates that during October an exposure of approximately 2,600 acres will take place with the remaining 200 to 240 occurring during December. We have

information that the presently exposed archeological sites are already being subjected to indiscriminate surface collecting by the public. We wish to begin our archeological reconnaissance as soon as possible. Our schedule anticipates completing the majority of the survey during October and early November. Some field time will be reserved for a check during December of the remaining acreage that is anticipated being exposed at that time. Therefore, in contrast to the 49 calendar day report submission deadline called for in Item 1 of the Scope of Work, we propose that a specific date be substituted for the report deadline. We propose that the draft report be submitted to the Little Rock Corps office by January 31, 1979.

Also, in regard to Items 1 and 3.b of the Scope of Work, since this is considered a reconnaissance level survey, and given existing time and fiscal constraints, subsurface testing to determine significance cannot be performed on every site which, in terms of our field judgment, may warrant testing. Limited shovel testing and occasional testpits may be utilized, as time allows, to gain information about a site, but in most cases this limited work will not be adequate to determine National Register significance of these sites. Our report will contain specific recommendations for additional testing of those sites, if necessary, as required by Item 3.d of the Scope of Work. The Arkansas Archeological Survey has reviewed the other specifications of the Scope of Work and agrees to comply with the requirements.

The exact time schedule for work will be determined by the Arkansas Archeological Survey Coordinating Office. As specified in Item 5 of the Scope of Work, the Arkansas Archeological Survey, however, will coordinate

our schedules with the Nimrod-Blue Mountain resident office and the Arkansas Game and Fish Commission.

As specified on the attached budget we propose to spend an equivalent of 24 days conducting the actual survey. This time will be distributed over the months of October, November, and December, with the majority of the work being undertaken as soon as possible after the Notice to Proceed is received. This work will be undertaken by a Project Archeologist and one Field Assistant. One day of travel is added to the 24 field days for budgeting purposes. In addition, 25 days each are budgeted for the Project Archeologist and a Lab Assistant to prepare collections for study, analyze the collected materials, and prepare the final report. Other technical staff, as needed, are indicated in the budget.

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APPENDIX C

SUPPLEMENTAL PROPOSAL

PROPOSAL FOR SUPPLEMENTAL ARCHEOLOGICAL INVESTICATIONS AT LAKE NIMROD, YELL COUNTY, ARKANSAS

The Arkansas Archeological Survey is conducting an archeological survey of normally inundated areas of Lake Nimrod which are presently exposed by the current drawdown of the lake. The Scope of Work for this initial reconnaissance calls for an archeologist and an assistant to spend 25 field days and 25 lab days in providing the Little Rock District, U.S. Army Corps of Engineers with an inventory and partial evaluation of the cultural resources collected and recorded during the field survey.

The Arkansas Archeological Survey is now requesting additional support from the Little Rock District Corps. This additional money will be used for more extensive laboratory analysis of materials collected during the field survey which yielded many more sites and more materials than could be predicted on the basis of previous data, and for the testing of a number of sites, and the analysis of the materials produced by testing these sites. It would be both scientifically and economically more effective to do this additional work now than to wait until the next drawdown period when the sites may be further damaged and costs undoubtedly higher.

The original Lake Nimrod Survey Budget and Scope of Work were based upon a somewhat similar survey of Blue Mountain Lake conducted by the Arkansas Archeological Survey in 1977 (Padgett 1978). Soon after the field survey of Lake Nimrod commenced, however, it became evident that the two project areas were not entirely comparable. The Blue Mountain and Lake Nimrod surveys have both quantitative and qualitative differences. While the acreage covered by the Lake Nimrod survey is more extensive, the density of sites located, recorded and collected is considerably greater than those found at Blue Mountain Lake. For

example, with two-thirds of the Lake Nimrod field survey completed, 155 sites have been recorded. The Blue Mountain Lake survey recorded only 39 archeological sites. This yields a site density of .02 sites per acre for Blue Mountain lake, and a current site density of .08 sites per acre for Lake Nimrod. The areal extent of the sites and the quantity of cultural materials associated with many of the sites at Lake Nimrod are measurably different from most sites recorded from Blue Mountain Lake. For example, one site, P292-163, yielded abundant material continuous for over 500 meters. Two collection bags were filled comprising less than 1% of the surface material present. Although laboratory analysis of these collections is only partially completed, it is our opinion that no less than 25 of the presently recorded sites are considered significant enough to warrant further testing, if time and funds were available.

The initial field survey for Lake Nimrod will be completed in the scheduled 25 day field period as specified in our proposal and budget for the reconnaissance survey. The laboratory time needed to process and analyze the cultural material collected, however, will far exceed the 25 days allotted for laboratory analysis. The processing of materials from 72 sites has already used 80 hours (10 days) of the time budgeted for laboratory analysis. This means that it will require all of the budgeted time for simply processing (washing and numbering) the materials. The cataloging and preliminary analysis of these materials has yet to be done.

The extensive laboratory time needed for the processing of materials is a result of two factors: 1) The number of sites recorded and collected far exceeds estimates of site density based on Blue Mountain Lake finds; 2) The surface collections of many of these sites have been

quite large. In many cases it was considered imperative to make these large collections. In most cases the extent of material remains at some sites simply warranted a large collection. Secondly, the opportunity to recover extensive collections for many of the sites in the area will be lost if not collected at this time. Erosional and depositional factors may obscure future site visibility and/or displace materials now present. Also, due to the intensive collection of presently exposed sites by relic collectors, the probability of a large site remaining immune to further collection is doubtful. This plight has already befallen a majority of sites on the lake, as shown by the relatively small number of diagnostic artifacts recovered from especially extensive sites.

Besides the cost efficiency of doing supplemental archeological work at this time, there is a second, long-range implication. During Padgett's Blue Mountain Lake survey an ancillary project was undertaken. This study of the effects of long-term inundation on archeological sites was funded by the National Park Service and the Arkansas Archeological Survey. In this study an experimental site was "constructed"; various test samples of cultural material were placed in this site, and plans were developed for the periodic monitoring of this test site during further drawdowns of Blue Mountain Lake (Padgett 1978).

If we are allowed to conduct test excavation at several of the recorded sites in Lake Nimrod, observations on the condition of these sites can be made at this time, control points put into the site, and subsequent observations made on the condition of the site the next time Nimrod Lake is drawn down. If we did this at this time, observations of the effects of inundation on actual archeological sites could be

obtained in 6 or 7 years, the next time the lake is drawn down. If we waited to make these initial subsurface observations until the next time the sites are exposed, it would be approximately 15 years before such results would be available.

PRIORITY OF TASKS TO BE PERFORMED WITH ADDITIONAL FUNDING

1. In requesting the additional funding to supplement the goals of the current survey project, the first priority of allocation of funds is with the completion of the processing and a fuller analysis of cultural resources collected during field survey. It is expected that between 175 and 200 sites will be recorded by the completion of the survey. Based upon this estimate, 240 hours of laboratory work is necessary in addition to the 80 hours already expended. A breakdown of this required laboratory time would show 100 additional hours needed for the washing of materials, 80 hours for accessioning, and 60 hours for superficial lithic and ceramic analyses. The proposed laboratory time needed for the completion of the survey data analysis will extend an estimated 120 hours or 15 man days over the present time budgeted. This request for additional lab time for survey collections is indicated as a separate item in the budget. No increased time is requested for the Project Archeologist to analyze and write up the survey data.

2. Additional funds are requested to conduct further investigation of recorded sites within the survey area. This activity will include two types of testing. First, at a number of sites (5-10 if possible), intensive controlled surface collecting and mapping, coupled with subsurface shovel testing, will be performed. These subsurface tests will record both soil stratigraphy and any possible occurrences of subsurface cultural features. Secondly, 2 to 4 sites will be selected

for more extensive testing to assess their possible significance. These tests will include at least three 1 x 2 m excavation units dug from surface to sterile soil at each site.

The sample of sites to be tested (simple 1 x 1 m subsurface shovel tests, and more extensive 1 x 2 m excavation units) will be stratified to include both sites located on the lake bottom in close proximity to the old river channel and those eroding out of the banks delimiting the present day conservation pool level at Lake Nimrod. These are the two type locations associated with most of the sites recorded in the field survey. The purpose of the stratification of the sample is to collect data for comparison between the two type locales and to assess the possibilities of finding preserved subsurface deposits, amenable to more extensive mitigation in either of these distinct topographic areas.

The testing of sites selected from the survey reconnaissance will be performed in 10 additional field days by the project archeologist and 2 assistants. This field work can commence as early as December 11; all survey activities being performed under our current Purchase Order will be completed by that time. The archeologist and assistants will spend an estimated 40 man days in laboratory processing and analysis of the excavated materials. The archeologist will spend an additional 10 days in report preparation.

3. In addition, we request funds to hire specialists to assist in laboratory analysis and interpretation of both the survey and excavation data. A ceramic specialist will spend 2-3 man days aiding in the classification of ceramics recovered in the survey and testing. A geomorphologist will spend 1-2 days in the field investigating the survey area and aiding in the interpretation of environmentally related

phenomena integral to the interpretation of the archeological resources recovered. An additional 1-2 days is budgeted for a geologist to aid in the identification of lithic resources found in the area and in the site collections.

REPORT OPTION

At the option of the Little Rock Corps of Engineers, the Arkansas Archeological Survey is prepared to submit either a joint report covering both the survey project and the testing/excavation project or two separate reports. From a programatic standpoint the former format is more desirable.

REFERENCES CITED

Padgett, J. Thomas
1978 Blue Mountain Lake: an archeological survey and an experimental study of inundation impacts. Arkansas Archeological Survey Research Report 13

APPENDIX D

SITE DESCRIPTIONS

Each of the 188 sites recorded during the Nimrod Lake shoreline survey is described in detail in this appendix. The narrative descriptions include information on the general location of each site and the effects of project operations on each site as observed during the lake drawdown. The volume of categorized information dictates an economical and easily utilized format for the presentation of analytic data from each site. To achieve this goal, the following data tables are presented to be used in conjunction with the narrative description of each site. Table D.1 presents the general chronology, probable function, topographic setting, soil association, distance from the Fourche La Fave river bed, and elevation of each site. Tables D.2, D.3, D.4 and D.5 contain an inventory of the artifact collections of each site as well as the lithic and ceramic classifications of each collection.

3YE70

This site is approximately 20,000 sq m in extent and is located on the north bank of the Fourche La Fave channel east of Carter Cove. It is completely inundated by the lake and heavily eroded. A select collection was made from three distinct areas of the site.

3YE71

This site is located along the edge of the English Branch where it feeds the Fourche La Fave floodplain. Cultural materials extend 120 x 20 m at the conservation pool edge and 25 m into the reservoir along a point. The material is eroding out of the conservation pool terrace.

3YE72

This site is a thin lithic scatter, linear in configuration, which extends 30 m along the south shore of the tail of Wilson Slough, The site is eroding out of the slough bank. Angularly cracked sandstone fragments are present.

3YE73

Located on the west side of Wilson Slough at the confluence of Porter and Gilkey creeks, this site is linear in configuration and extends 50 m along the shoreline. The site is being heavily eroded, probably due to wave action. Numerous sandstone fragments are present.

3YE74

This small site extends linearly for 25 m along the south shore of the Wilson Slough tail. The main body of the site is probably on the upper slough terrace away from the survey area. The site is presently being eroded from the upper bank. Large numbers of sandstone fragments are present.

3YE75

This site is a small lithic scatter which is linear in configuration and extends 25 m along the south shore of the tail of Wilson Slough. The main body of the site is probably on the higher slough terrace presently covered with tall grass and small bushes. The site is being eroded from the bank due to wave action on the shore. Sandstone fragments are present.

3YE76

A lithic scatter of very small proportions, this site is located on the north shore of Wilson Slough just east of the Sunlight Bay Recreation Area. The site appears to have eroded out of the slough bank, but further examination of the upper bank left no indication of a larger undisturbed site area present on the bank. Sandstone fragments are present.

3YE77

Just south of the above site, 3YE76, on the north and east shore of Wilson Slough, a very small cluster of lithic remains (five flakes) is eroding out of the slough bank.

3YE78

This site is located on the east facing shoreline of Wilson Slough. The area is characterized by four small lithic scatters, each confined to a small rise or elevation. The site is entirely within the limits of the conservation pool at normal lake level. Some erosion of the site area may be taking place. Each rise contains some sandstone fragments in addition to chert scatters.

3YE79

A large concentration of lithic artifacts distributed linearly for 100 m along the north shore of Wilson Slough, this site is mainly on a higher bank bordering the slough. Two collections were made. The site is eroding out of the upper slough bank.

3YE80

This site is a small lithic scatter running linearly for 25 m along a north facing portion of Wilson Slough. The majority of the site is probably under the dense vegetation of the upper bank. A small portion of the site is eroding out of the upper slough bank. No collection was made.

3YE81

A single find, a projectile point, located on a west facing portion of Wilson Slough, lay within the conservation pool limits just southeast of 3YE79.

3YE82

This site is characterized by three distinct clusters of artifacts located on three small rises within the slough channel. The site yielded both lithic and ceramic materials. A large number of sandstone fragments were associated with each distinct cluster. The site is totally inundated when the Wilson Slough is at conservation pool levels. Indications of subsurface collection "potting" were noticed.

3YE83

A small lithic scatter running linearly for 10 m along the southeast shore of Hogan Creek, this site is probably mainly located on the upper bank presently under dense vegetation. The site is eroding out of the upper bank. No collection was made.

3YE84

This small lithic scatter, located along the southeast shore of Hogan Creek extends for 25 m along a linear strip of shoreline. The site is eroding out of the upper bank which probably contains the major portion of the actual site. No collection was made.

3YE85

North of the above site along the shore of Hogan Creek, a projectile point was found. This single find probably eroded out of the upper bank.

3YE86

This site is a lithic scatter of linear configuration occurring along an east facing shoreline of Wilson Slough. The scatter extends for 15 m along the shore and is thought to represent portions of a site contained on a higher bank which is overgrown with vegetation. The site is eroding out of the bank probably due to wave action.

3YE87

This site is a large lithic scatter located just south of 3YE86 and along the shore of Wilson Slough. The site is narrow, and runs for 15 m along the shore edge. Material was recovered eroding directly out of the upper slough bank which was under thick vegetation cover. Sandstone fragments are eroding from the bank in association with the artifactual debris.

3YE88

This large site of linear configuration located on the south shore of Wilson Slough extends along the shore edge for 100 m. It yielded large numbers of lithic remains of varying types. The site is eroding from the bank which is covered with dense vegetation. Cracked sandstone fragments are present.

3YE89

Just north of the Fourche La Fave and west of Carter Creek, lithic scatterings of varying intensity are spread over a fairly large sandy area. The site's maximum extension is 125 x 75 m. It is bordered to the south by a linear levee/bank strip of land covered with willow trees which separate the site from the Fourche La Fave River. It lies just east of 3PE90. Sandstone fragments are continous with the lithic remains. Three collections were made.

3YE90

A fairly sparse lithic scatter extends 100 m by 10 m along the shore of a backwater area of the Fourche La Fave west of Wilson Slough. The site extends at least to a second terrace 20 feet back from the shore edge. The site is being eroded from the shoreline which is at a 20° slope and from the second terrace as well.

3YE91

Within the flat floodplain area of Wilson Slough, this site is totally inundated at conservation pool stage. It is characterized by six distinctive ridges, each with artifact concentrations. The ridges noted may in fact represent the remains of different terraces constructed by the Wilson Slough. Sandstone fragments are present throughout the area.

3YE92

A projectile point found on the east shore of the tail of Wilson Slough may reflect the presence of a site on the upper bank of the slough, an area presently covered with vegetation. The point probably eroded out of the slough bank.

3YE93

This site is a 100 sq m lithic scatter located at a point jutting into the east side of the tail of Wilson Slough. The artifact density is sparce throughout the site area. Sandstone fragments are present. No collection was made. The site is normally inundated by the conservation pool.

3YE94

This lithic scatter is located northeast of 3YE93 on the north shore of the tail of Wilson Slough. The site is very similar to 3YE93 except that it is slightly more extensive (15 m in length) and is only partly inundated by the conservation pool. Artifactual material is eroding out of the bank of the slough. Sandstone fragments are present. No collection was made.

3YE95

Located almost directly across the Wilson Slough from 3YE94, this site is a small lithic scatter extending 25 m along the southeast shore edge of the tail of the slough. The site extends into the vegetation cover of the upper bank. Material is eroding out of the bank and sandstone fragments are present.

3YE96

Another small lithic scatter just west of 3YE95 on the south shore of Wilson Slough tail, this site probably extends into the vegetation of the upper slough bank. The site is eroding out of the bank probably because of wave action. No collection was made.

3YE97

This site is characteristic of the other Wilson Slough sites. It is linear in configuration and located along the western shore edge of the tail of the slough. The site is a small lithic scatter of unknown dimensions.

3YE98

A small lithic scatter located along the west shore of Wilson Slough tail is the northernmost site of the slough tail and extends 25 m along the shore edge. The site probably extends into the vegetation of the upper bank but its true extent is unknown. Material is eroding out of the slough bank and sandstone fragments are present.

3YE99

This site is a large lithic scatter extending 25 x 75 m along the southwest shoreline of Prairie Creek. It extends farther into the backwaters of the creek than any others found. A portion of the site is intact under dense vegetation cover of the creek terrace. Cultural material as well as the vegetation covering the bank are eroding due to wave action.

3YE100

This is a lithic scatter extending approximately 50 m along the southwest shore of Prairie Creek, northwest of 3PE99 . This site is divided somewhat by a small backwater incursion and probably extends into the vegetation of the upper creek bank. Material is eroding out of the bank due to wave action.

3YE101

A lithic scatter located along the northwest shore of Wilson Slough just north of where the slough tail and slough meet, this site measures 20 x 3 m. Material is eroding out of the bank which has a slope of 10^{o} and sandstone fragments are present.

3YE102

This scatter of lithics located along the north shore of the Wilson Slough tail is linear and only 3 m long. It is located just west of where an unnamed creek enters the slough tail. The material is probably eroding out of the upper slough bank.

3YE103

A backcut 10 m long extending at a 45^{o} slope exposed a site which yielded both lithics and ceramics. The site is on the sloping south shore of the island created by Wilson Slough and the Fourche La Fave and is adjacent to the Fourche. The material recovered was obviously being eroded out of the sloping shore edge and cultural remains are suffering further erosion due to the drawdown and general wave action. Clearly stratified layers of gravelly soil show earlier lake levels of the drawdown.

3YE104

This is a small lithic scatter on a southeast facing shore of Wilson Slough across from 3YE80. The site extends along the terrace edge of the slough 10 x 2 m and is partially to completely inundated by the slough at conservation pool stage. Material is eroding from the terrace edge and sandstone fragments are present.

3YE105

This site consisted of two chert fragments occurring 12 feet apart along the terrace edge of Wilson Slough directly across from the southern portion of 3YE91 and just northeast of 3YE104. The two pieces were found among a line of old eroded tree stumps,marking the terrace edge. The ground was hard and cracked with some silt covering. Tree stumps with exposed roots give evidence of erosion at the site. Sandstone fragments are present in the vicinity.

3YE106

A small scatter of lithics and ceramics was found at the conservation pool edge on the north shore of Wilson Slough tail across from 3YE72. The site extends 10 x 4 m and was at the time very muddy. Material is eroding from a higher slough bank. Sandstone fragments are present.

3YE107

This small lithic scatter 5 x 5 m located on a bare area near the conservation pool edge of the tail of Wilson Slough is across from 3YE75. No other rock material was seen in association with the artifactual scatter.

3YE108

An extensive lithic scatter occurred on the north shore of the Fourche La Fave just east of Wards Crossing. This site is normally covered by the conservation pool and extends 175 x 25 m along the channel terrace which has a bank slope ranging from 20-40°. Portions of the site are being eroded out of the bank upon which is the road crossing the Fourche (Wards Crossing). Sandstone fragments are present and variations in artifact density were directly proportional to sandstone fragment densities over the same area.

3YE109

Located on the western side of Carter Creek, south of Carter Recreation Area, this site is a lithic scatter extending 75-100 x 10 m along the creek edge and onto the terrace bank. The site is totally covered when the reservoir is at conservation pool levels. Some material is eroding off the terrace top and out of the bank. Sandstone fragments cover the area. Four collections were made.

3YE110

A gravelly point jutting out from the west side of Carter Creek directly across from 3YE127 and northeast of 3YE89 exposed a 30 x 30 m site which is somewhat divided by a small backwater area of Carter Creek. Lithics and ceramics both were recovered. The soil at the site ranged from rocky to silty and clayey. At the creek bank the slope is 35° and material is eroding from the bank. Sandstone fragments are present.

3YE111

This site is approximately 50 x 50 m on what looks like an island but is now connected by land due to the drawdown. Located on the western bank of Prairie Creek it is at the point of the creek's junction with the Fourche La Fave. The site is in vegetation but the banks are eroding rapidly.

3YE112

A very extensive site partially within the conservation pool, but also eroding out of the bank. This 100 x 100 m area is located on the west side of the channel created by Negro Branch near where it confluences with the Fourche La Fave, just west of Carter Cove. The total extent of the lithic scatter is unknown. Much of the site is in vegetation.

3YE113

A site 30 m south of 3YE112, separated by a lagoon and swampy area. This site is also a lithic scatter and is likely a part of 3YE112. Part of the site is in vegetation, but it is still exposed to erosional wave action.

3YE114

On a point on the east side of Negro Branch where it junctions with the Carter Cove "fingers" area, a small scatter of lithic debris is eroding into the conservation pool. Sandstone and groundstone fragments are present.

3YE115

Just east of 3YE114 in the Carter Cove area is a small lithic scatter that is eroding out of the bank of an overgrown area into the conservation pool. A select collection was made over an area 25 x 15 m. The erosion of the site is due to wave action.

3YE116

A small scatter of lithic debris about 10 x 10 m in extent, this site is under water most of the year. It is located in a small cove on the north side of the Fourche La Fave southeast of the Wilson Slough junction. Erosion seems to have removed the top soil exposing the artifacts. The slope is 1-3°.

3YE117

This site is an extensive lithic scatter in the same unnamed cove as 3YE116. The site area looks like an island of small trees and bushes and is located south and west of a high bluff. The area where the collection was made is eroding out of this bluff. Areal extent is approximately 75 x 50 m. The site is periodically inundated by the lake.

3YE118

In the same cove of the north shore of the Fourche La Fave southeast of Wilson Slough is a small lithic scatter on a small rise covered with bushes. This site is about 8 x 8 m in extent with a slope of 0-5°. It lies next to what is believed to have been the bed of a small intermittent creek, is not totally inundated by the lake, and is eroding due to wave action.

3YE119

West and north of 3YE118 on another small rise in the unnamed cove on the north side of the Fourche La Fave is a small site approximately 4 x 10 m. The site is normally inundated by the conservation pool and is eroding due to wave action of the lake.

3YE120

On a small rise along an old bed of a small intermittent stream near 3YE118 and 3YE119 is a small site 4 x 4 in extent. The site is totally inundated by the conservation pool and is being destroyed by erosion due to wave action.

3YE121

This site is located on the east side of a cove on the south bank of the Fourche La Fave River just west of the Prairie Creek junction. It is a small lithic scatter in dense undergrowth with material extending linearly 10 m and eroding out of the bank. No collection was made.

3YE122

West of 3YE121 on the south bank of the Fourche La Fave is a large area where a few artifacts are eroding out of the bank. Areal extent is linear about 50 m long. This site may be extensive and still intact in the undergrowth. Sandstone fragments are present.

3YE123

Similar to 3YE122 and just west of that site is a linear (30 m) area of artifacts eroding out of the south bank of the Fourche La Fave. Either the site is very small and is gone or it is just starting to erode. No collection was made.

3YE124

A large site on the north bank of the Fourche La Fave just at the junction of the unnamed cove area where sites 3YE16-3YE20 are located is eroding out of the bank. Areal extent of the site is 50-70 m long. Artifacts were few but much sandstone was present.

3YE125

A single projectile point was found along the eastern bank of Prairie Creek. The point was found eroding out of the creek bank. The original extent of the site is unknown.

3YE126

A site approximately 15 x 15 m is located about 50 m south of 3YE124. It is similar to that site in artifactual material. This Carter Creek site is exposed to erosion and is normally inundated during conservation pool levels.

3YE127

This site is a long extensive site above the north bank of the Fourche La Fave River southeast of 3YE126 in the Carter Creek area. Areal extent is approximately 25 m x 1000 m. Extensive materials are scattered along a low terrace. Various concentrations of remains were collected separately. The site is exposed to erosion due to wave action.

3YE128

Below 3YE126 on the present bank of the Fourche La Fave River is a small site which may be a secondary deposition. Areal extent is 15 x 35 m. The cultural material is eroding because of wave action of the lake.

3YE129

Located at the very tip of the eastern Carter Cove area, most of this site is contained on and within the bank. The area fairly intensive with artifacts is about 75 x 50 m with a slope of 0-1°. It is a favorite collecting spot for artifact hunters. The material is eroding out of the bank.

3YE130

This site may be an extension of 3YE129 near the eastern tip of Carter Cove. It extends over a 10 m area eroding out of the same bank about 30 m north of 3YE129 toward where the Anderson Branch enters the lake. The slope is 0-3°. Most of the site is probably contained within the bank but is eroding out due to wave action.

3YE131

A single projectile point was found eroding out of the bank in the backwater area of Anderson Branch just as it enters the lake on the eastern side. The rest of the site may be completely destroyed by wave action.

3YE132

A small lithic scatter is eroding out of the bank on the east side of Anderson Branch. Most of the site is probably in the bank which is covered in heavy grass. The material is eroding out of the bank over a 30 m area. Slope is 0-3°.

3YE133

A site yielding historic ceramics and prehistoric artifacts is located just south of 3YE132 on the east side of Anderson Branch. Areal extent along the shore is about 25 m. How much of the site is contained in the bank undergrowth of low grass is unknown. Material is eroding due to wave action along the bank.

3YE134

Near the north bank of the Fourche La Fave River along the east side of Anderson Branch is a large site with extensive amounts of cultural material. The site is in grass and brush and is eroding out of the bank for almost 200 m. Slope is 0-2°.

3YE135

Just west of 3YE133 is a small lithic scatter approximately 20 x 10 m. Contained within the conservation pool the site is on a small rise on what seems to have been the original stream bank of Anderson Branch. Slope is 0-1°. Material is eroding due to inundation by Lake Nimrod.

3YE136

East of Anderson Branch on the north shore of the Fourche La Fave River, this site has extensive areas of artifact concentrations located in tall grass. Areal extent is approximately 150 x 50 m but may extend further back into the undergrowth. Slope is 0-3°. Two collections were made. Part of the site is eroding from the bank due to wave action.

3YE137

Next to 3YE136 on the north shore of the Fourche La Fave River is another extensive site with areas of artifact concentrations on small low knolls in the undergrowth. The four knolls were collected separately and provided good to excellent ground visibility. A shore collection was also made. The site is partially eroding along the bank and is partially in low vegetation and grass.

3YE138

Probably associated with sites 3YE136, 3YE137, and 3YE139, most of this site is contained in tall grass and small bushes. It is characterized by large and small concentrations of artifacts which were collected separately. Part of the site is eroding into the conservation pool.

3YE139

East of 3YE138 on the north shore of the Fourche La Fave River is a site characterized by large areas of artifact concentrations located in an area of grass and small brush. Portions of the site are eroding into the conservation pool.

3YE140

This site is a small lithic scatter located on a small knoll on the east side of English Branch. It is approximately 10 x 20 m in extent and about 20 m from the original bank of the branch. The site is devoid of any vegetation and the slope is 0-3°. The entire site is eroding due to inundation by Lake Nimrod.

3YE141

South of 3YE140 on the east side of English Branch is a site 20 x 50 m in extent and devoid of vegetation. The slope is 0-1°. The entire site is inundated and eroding. Projectile points and ceramics were found. A railroad dump is located to the east of the site.

3YE142

South of the railroad dump to the Fourche La Fave River on English Branch is a small 10 x 10 m site eroding out of a steep bank. No vegetation was present and the site is eroding due to the inundation of the lake.

3YE143

On a circular rise on the floodplain extending to the railroad dump is a site approximately 50 x 50 m in size. The rise is about 10-15 feet above the surrounding area with a slope of 35°. The site is being eroded during normal conservation pool and is being damaged by wind and rain.

3YE144

A small site at the junction of Earl Branch and the Fourche La Fave River is eroding due to inundation of the lake. Silting over of the area made visibility poor.and the area seems to have been burned over. The only vegetation is short grass. The slope is 0-1°. All material seen was collected.

3YE145

Two circular areas 15 x 15 m each contain artifact concentrations and sandstone debitage. This site is located just west of Carden Point inbetween the first two points. No vegetation is present and the slope is 0-3°. Sandstone debitage and fire cracked rock are present. The site is eroding due to inundation by the lake.

3YE146

This site is a small circular scatter of sandstone and lithic debris. Approximately 10 x 10 m in size with a slope of 1°, this circular area is devoid of vegetation and shows a darkened area due to the abundance of small black pebbles. The site is 20 m west of 3YE145. The site is either eroding or being silted over due to wave action.

3YE147

On a circular rise east of 3YE146 on the bank of what used to be a small intermittent stream, this site has a large concentration of both chert and sandstone debitage and a noticeable lack of tools. Its extent is 15 x 15 m and the slope is 0-3°. The site is eroding due to wave action.

3YE148

This site is extensive with three areas of artifact concentrations (30 x 30 m, 30 x 30 m, and 30 x 50 m) on an old terrace of the Fourche La Fave River. The areas were devoid of vegetation and are eroding due to wave action and potted by collectors.

3YE149

Northeast of 3YE148 and extending along the bank of a small intermittent stream on the north side of the Fourche La Fave is an area of sandstone and chert debris. Areal extent is about 20 x 20 m. No vegetation covers the site and the slope is 0-1°. The site is eroding or being silted over by wave action.

3YE150

This site, although rather large in extent covering 50 x 10 m, consisted of very few artifacts. It is located on the east bank of a small unnamed intermittent stream at its junction with the Fourche La Fave. The site is probably being silted over by the lake.

3YE151

Located south of Crap Shooters Point on the west bank of Earl Branch is a site approximately 75 x 20 m. Two areas of the site were collected. The site is eroding especially along the bank edge due to wave action.

3YE152

Chert debitage, historic ceramics, glass, metal and a foundation are present at this 20 x 20 m site. It is located at the regulation edge of the conservation pool in the bay area between Crap Shooters Point and Carden Point. The site is exposed and probably eroding due to wave action.

3YE153

Just east of 3YE152 is a large 40 x 20 m site covered by vegetation but partially exposed by the conservation pool. The slope is 0-5°. The site is partially eroding due to wave action.

3YE154

Located on a slough area where the Fourche La Fave River bends to its most northern point before turning south, this site is on a small round rise 10 x 10 m in size. The rise looks like a small pimple mound with very sandy soil. Large clumps of hard clay (daub?) and ceramics are present. The site is eroding due to wave action.

3YE155

This site is located just south along the east bank of a slough area just before it junctions with the Fourche La Fave River. The site is 20 x 30 m with large amounts of sandstone debitage. The bank portion of the site is being eroded and the interior is being silted over.

3YE156

A 60 x 30 m scatter of chert and sandstone debris is located at the area where the Fourche La Fave River bends and reaches its most northern point (just west of Carden Point). The site is devoid of vegetation and has a slope of 0-5°. It is exposed to both wind and water erosion.

3YE157

A small lithic scatter eroding out of the east bank of Carden Point, also along the west bank of Carden Branch. Chert debitage and sandstone fragments covered an area which extended 40 x 10 m with a slope of 0-15°.

3YE158

A site 40 m x 35 m is located on the NE shoreline of Prairie Creek directly opposite 3YE159, which lies on the opposite shore edge. The site is bordered by a steep terrace bank (slope from 60° to 30°) and occurs at either side of a small backwater inlet. Two samples were collected. A large amount of cracked sandstone is present. Terrace banks are eroding out and may be producting the material recovered.

3YE159

This site is on the SW shoreline of Prairie Creek directly across the channel from 3YE158. Two collections were extracted. Artifactual material is dispersed parallel to the shoreline, for the most part covering an area 55 m x 30 m, with a small portion of the site extending out onto a point jutting into the creek channel. The bank edge is eroding. Cracked sandstone fragments were observed throughout the site.

3YE160

A small lithic scatter 5 x 5 m is located on the south shore of Prairie Creek just west of its confluence with the Fourche La Fave. Artifactual material was found in the creek bed and on top of the associated terrace. The terrace slope runs 15 feet into the creek bottom as a 30-40° slope. The terrace edge is eroding. Cracked sandstone and other rock is also eroding from the top and middle terrace bank.

3YE161

Along the conservation pool edge of the east shore of a backwater slough is a small lithic scatter extending 10 x 5 m. The slough lies immediately west of the Carter Cove area and is fed by the Negro Branch. Cracked sandstone was observed in association with artifactual material. The site may be washing off the slough terrace.

3YE162

This site is located due south from 3YE161 along the same shoreline. This sparse lithic scatter extends along the shore 40 x 10 m. Cracked sandstone was observed at the site. No active erosion was noted.

3YE163

A very sparse lithic scatter 45 x 10 m is located on the first stream terrace of Negro Branch as its channel cuts through the larger slough area. The site is very heavily eroded and erosion was ongoing at the time of the survey.

3YE164

Northeast of 3YE163 and along the same shoreline as 3YE160, 3YE161, and 3YE162 is a site extending 45 x 20 m. The outer terrace banks range from 10-40° as the site rounds a small point. Some cracked sandstone was present. The terrace bank is eroding.

3YE165

The site is located south of 3YE164 and along the same shoreline. It extends along two points with high artifact density covering an area 160 x 10 m. A large amount of cracked sandstone and other miscellaneous rocks and gravels were associated with the artifacts. The terrace bank slopes at 30° and material is probably eroding out of the terrace edge.

3YE166

At the confluence of a small backwater inlet with the Fourche La Fave, on the north shore of the Fourche and just southest of Wilsons Slough is a site extending 60 x 20 m. Two collections were made. Cracked sandstone is present. The banks forming the outer boundaries are eroding into the inlet depositing artifactual material.

3YE167

At the head of an inlet on the north shore of the Fourche La Fave just east of Wilsons Slough is a lithic scatter extending 40 x 10 m along a 10° slope. Portions of the site extend into areas covered with small lowlying bushes. Material could be washed in from other areas of the inlet.

3YE168

A short distance due west of 3YE123 is a small lithic scatter. It lies on an old stream confluence on the south shore of the Fourche La Fave and extends 20 x 3 m along the shoreline. Material is eroding out of the terrace bank which slopes at 45°.

3YE169

An isolated find (projectile point) was found on the north shore of the Fourche La Fave due east of 3YE124. The site is located midway between Wilsons Slough and Prairie Creek. The point was eroding out of the shoreline terrace which has a 35-40° bank slope.

3YE170

The site is a small lithic scatter located on the north shoreline of the Fourche La Fave, just west of the confluence of the Fourche and the slough fed by Negro Branch. Material extended 25 x 10 m along the slope of the river terrace. The terrace slope averaged 40° and the site is eroding out of the river terrace.

3YE171

This site is a sparse lithic scatter extending 4 x 1 m along the stream terrace of Carter Creek, which transects the Fourche La Fave floodplain in the Carter Cove area. Material was recovered among tree roots which border the stream terrace. Material was also found protruding out of the heavily eroded stream terrace.

3YE172

On a sandy knoll in the center of the Fourche floodplain in the Carter Cove area is a site which extends 50 x 40 m N-S. In the center of the knoll is a circular stand of trees 24 m in diameter. Material was recovered from the sandy areas of 50° slope between knoll edge and the edge of the trees. Cracked sandstone was present. No active erosion was observed, but some siltation on the knoll may be occurring.

3YE173

In the southwest Carter Cove area a site is located at a sandy spot along the conservation pool shoreline, only a small distance north of the Fourche La Fave. A sandy ridge with some trees separates the conservation pool from the Fourche main channel at this locale. Cracked sandstone was observed at the site. No active erosion was observed.

3YE174

Two samples were taken from this large site which is located adjacent to and east of P292-105. The site extends irregularly 15 x 40 m along the conservation pool edge and into the floodplain. It is bordered to the south by a sandy ridge separating it from the main channel of the Fourche. Cracked sandstone was present. No active erosion was observed but the irregularity of the shoreline topography implies some erosion by the conservation pool levels of the reservoir.

3YE175

This site is located a short distance due east of P292-106 and in a similar topographical situation. The site extends 50 x 50 m and is characterized by a light scatter of cracked sandstone and artifactual lithic debris. No active erosion was observed.

3YE176

Due east of P292-18, on the north side of the Fourche lies this site at the confluence of the Fourche La Fave and Carter Creek. Material was collected from the first stream terrace of Carter Creek and the Fourche over an area 15 x 10 m. Cracked sandstone was observed on the site. The stream terrace is sloping into the creek channel at 20^{o}.

3YE177

This site is a small lithic scatter located on the west terrace and 35^{o} terrace slope of Carter Creek directly across the stream channel from P292-55. Material extended 30 x 30 m, discontinuously, as the site was broken by a small backwater low spot fed by the creek. Cracked sandstone was present. The terrace slope is eroding out into the creek channel.

3YE178

Consisting of a light lithic scatter 10 x 20 m, this site borders the river on its northern side, directly across from LN140 and due east-north-east from LN58. The site is surrounded on three sides by water, the river, and two backwash areas which border the site on its long axis. All material seen was collected. Cracked sandstone was present. Visibility was poor, probably due to siltation.

3YE179

Due northwest from LN110, this site runs linearly 70 x 20 m from the northwest to southeast along a high sandy ridge which becomes a series of ridges running north-south from near the English Branch back west toward LN58. Lithics, pottery, and the remains of a tractor or other machinery were seen. A special sample (10 x 20 ft.) of a pottery concentration was collected. No active erosion was noted.

3YE180

A site of lithics and ceramics is located a short distance due northwest from the most northwest extension of 3YE70 and on a northwest running path in line with 3YE178 and 3YE179. The site which yielded lithics, ceramics and cracked sandstone is situated on the terrace of the English Branch within the Fourche floodplain. A small amount of erosion was noted along the terrace edge.

3YE181

Just lightly northwest of 3YE180 along a convoluted gravelly point of the English Branch is an artifact scatter distributed over an area 10 x 20 m. Most material was seen eroding out of the terrace bank.

3YE182

Slightly northwest of 3YE181 along a point of the English Branch is a site very similar to 3YE181 only extending over an area 30 x 15 m. Visibility at the site was very good. The material is eroding from the terrace bank.

3YE183

On the opposite bank of the cove from 3YE183 and a few meters to the north. This is a historic site yielding material over an area 70 x 10 m (northwest-southeast) along the northeast shoreline of the conservation pool across from the English Branch. Most material is thought to wash out of or off of the terrace although very little active erosion of the terrace was noted.

3YE184

A site lies east of 3YE183 along a point of land separating English Branch cove from the next cove to the east. The area yielded material from 75 m along the shoreline and 20 m from shore edge into the reservoir. A series of erosion cuts were observed with small gravel lying closest to the cut and a quantity of cracked sandstone and other rocks lying slightly farther from the cut. The whole shore edge is heavily eroded, giving the shore a cut/point effect. At the small points material appears to extend farther into the reservoir.

3YE185

Just southeast of 3YE184 at the outermost point of the previously described shoreline is a site yielding sparse remains over a 60 x 15 m gravel bar which marks the point and in which the artifactual material was found. No strong erosion was noticed but the presence of the gravel bar denotes deposition at that point.

3YE186

On the eastern shore of the first full inlet east of English Branch is a stream channel with no name. The site located there is a small lithic scatter 10 x 15 m in area. The slope is 7-10°. No active erosion was noted.

3YE187

Just southeast of 3YE186 on the same shoreline, this site is at a point over an area of 40 x 30 m. The point is characterized by light and dense lineal bands and circular deposits of black gravel. Between shoreline and gravel accumulations the ground surface is red clay. Cracked sandstone was present. No active erosion was noted but gravel may indicate deposition processes.

3YE188

On the other side of land just northeast of 3YE187 is a site bordering an unnamed creek. It covers an area 20 x 20 m, and shows signs of gravel and silt deposition. This small lithic scatter also yielded cracked sandstone. The area shows signs of siltation--beer bottles, presumably deposited recently were all but totally covered.

3YE189

An isolated find at the northwest extension of the inlet created by backing of the stream referred to above for 3YE188 was located in association with a great number of cracked sandstone fragments covering a point of land 15 x 15 m. The area has only fair to poor visibility probably due to siltation and shoreline deposition.

3YE190

On a large rounded point across a cove from 3YE189 and just southwest of the path of Earl Branch is an area of artifact distribution 160 x 30 m. The greatest intensity of artifacts come from a curvilinear band 65 x 15 m which follows the shoreline edge but occurs about 10-15 m from the shore edge. The portion of the site on the terrace of the conservation pool is covered by straw (grass). Most of the shore edge bank was well eroded.

3YE191

Straight down the shoreline to the west/northwest from 3YE190 is a small lithic scatter in and amongst cracked sandstone. At the edge of the conservation pool shoreline, this distribution is sparse, diminishing into small erosional backwash cuts with 40° banks. The bank is eroded.

3YE192

A small lithic scatter amongst cracked sandstone is located down the shoreline to the north from 3YE191. The ground surface otherwise was bare, sandy and rocky. All material visible was collected over an area 15 x 10 m, perpendicular to the shoreline. No active erosion was observed.

3YE193

This site lays next to a tree line, just east of 3YE192 and extends out away from the line to east and north, covering an area 65 x 55 m. Much fire cracked rock is present. The site also borders Earl Branch. The site may represent a known historic structure shown to be very close by on COE pre-reservoir contour maps. No active erosion was noticed.

3YE194

This site is represented by three distinct concentrations of lithics (one with ceramics) which are distributed over a total area of 550 sq m. It lays along Earl Branch, and is bordered by water on three sides. The ground surface is dry, silty and littered with cracked sandstone and slightly elevated in relation to the site as a whole. The only erosion noted was along the banks bordered by water.

3YE195

A rich site, surrounded by lower muddy areas on all sides, lies northeast to 3YE127 and directly across a waterway from 3YE176. Lithic and ceramic materials were recovered over this area of 35 x 10 m, and cracked sandstone littered the site. There is a 5% slope in ground surface at water's edge. No strong erosion was noted but some material may have been obscured by siltation.

3YE196

This site is located slightly northwest of 3YE128 and along the south bank of the Earl Branch. The site is thought to extend 75 x 10 m and it yielded lithic material within a 30 x 20 m area. Cracked sandstone was present. A small bit of erosion was noted along the stream bank. The site shows signs of siltation.

3YE197

This historic site lies on the north side of Earl Branch a short distance northeast of LN82. The site which sits on a small sandy, gravelly knoll, yielded material from a circular area 10 m in diameter. The site probably corresponds with historic structures noted on COE contour maps. No active erosion was observed.

3YE198

This site borders Earl Branch, just slightly southeast of LN130. All material came from an area 5 x 2 m while the site spans an area of about 30 x 15 m. Some cracked sandstone was noted and surface visibility was hampered by heavy siltation. The site is level with a 20° slope at stream bank. No active erosion was noted, but the site seemed to show signs of heavy siltation.

3YE199

Just northeast of LN131, this site sits on top of a small 7 to 8 ft. rise along the bank of a dry stream meander of Earl Branch. An area 20 x 15 m was collected yielding sparse artifact concentrations. Gravel and cracked sandstone were noted at the edge of the stream bed. A small bit of erosion was noted along the dry stream bed.

3YE200

A strip of land surrounded on 2 sides by water and 1 side by the dry creek bed of Earl Branch, this site lies just slightly northeast of LN132. The site runs 25 m along the stream bed and is 15 m wide. It tapers into a point 5 x 2 m from which ceramics and a projectile came. Some cracked sandstone was noted along the point at water's edge. Erosional processes were active.

3YE201

This site is northeast of 3YE133 and is bordered by water (part of reservoir; old Fourche meander) and dry creek bed of 3YE132 and 3YE133. The site covers an area of 75 x 20 m. The site is level with a 20° slope along the stream bank. Cracked sandstone was observed with other cultural remains. A small amount of erosion was noted along the stream channel. Some areas appeared to have been "potted."

3YE202

A lithic scatter 60 x 20 m running linearly along Carden point due north of 3YE157 comprises this site. The entire area is characterized by a silty/sandy beach littered with cracked sandstone. It is bordered by trees and shrubs to the west on higher ground, and by freshly planted rye grass to the east. Some siltation was evident.

3YE203

This small lithic scatter is located on a small knoll 25 x 15 m southwest of LN58, along what may have been an old stream on the south side of the Fourche. The ground is a hard baked silty clay loam. Cracked sandstone contiguous with artifactual remremains was observed. No major erosion had occurred at the site.

3YE204

This is a single site yielding 3 distinct lithic artifact concentrations over an area 2650 sq m. The site is bordered on all sides except the southern one by water and a north running stream divides the area. The soil is quite sandy and the area is covered by cracked sandstone fragments and miscellaneous rock. Steep banks (75-80° slope) at water's edge showed erosion. This site had been previously collected.

3YE205

This sites is on the south side of the Fourche La Fave off a point at a stream confluence. The site, 40 x 30 m east-west, is characterized by a sandy soil littered with cracked sandstone. Along the river and stream edge the banks range from 20-30° in slope. There is a stand of willow trees near the center of the site. Heavy erosion was noted along the river banks.

3YE206

This lithic scatter occurred over an area 50 x 12 m on either side of a small inlet located on the south side of the Fourche La Fave. There are large amounts of cracked sandstone and miscellaneous rock debris overing the site. The steep slopes and banks of silty sandy soil are eroding.

3YE207

Along the south side of the Fourche La Fave channel, across from 3YE177, is a small lithic scatter extending 50 x 5 m. The soil was sandy and some cracked sandstone was noted in the area. Slopes of the river banks ranged from 20-40°. Heavy erosion was noted along the river banks as evidenced by exposed tree roots. Wind blowing the sand both covered and uncovered cultural deposits.

3YE208

Material was collected over an area 30 x 20 m on a sandy beach at an inlet due east of 3YE207. Much cracked sandstone and other rock was found in association with artifacts. The site is bordered to the east by a remnant stream channel and to the south by willow trees. Most of the material recovered came from 20° sloping banks facing the river. Artifacts, cracked rock and tree roots were eroding from the banks.

3YE209

Bordering the south side of the Fourche La Fave channel to the north and a small inlet on the west approximately 500 m east of the confluence of Prairie Creek with the Fourche is a long and narrow site extending 100 x 25 m. Cracked sandstone and other miscellaneous rock debris were noted at the site as were brush and willow stands. The terrace banks were eroding.

3YE210

A large site approximately 400 x 100 m was found on the south bank of the Fourche La Fave on the opposite side from the Anderson Branch inlet. The area was littered with flakes, sandstone and ceramics, and was exposed to wind and rain erosion due to the low lake level.

3YE211

Located on the south bank of the Fourche La Fave across the river from the Carter Cove where the Carter Branch junctions with the Fourche is a large concentration of artifactual material. The slope of the area is 0-1° and the site is covered in small bushes. Parts of the site are eroding.

3YE212

A small area containing lithics and ceramics extends 40 x 10 m along the east bank of English Branch where it junctions with the Fourche La Fave. A railroad dump lies on the east side of the site where the slope is 0-30°. The site was devoid of vegetation and is exposed to water erosion from rain. Part of the site may be preserved under the railroad dump.

3YE213

Probably the largest site located on the south bank of the Fourche La Fave, this site is on the interior point of land where the river bends north to its most northern point. Its areal extent is approximately 500 m long with an undetermined width. Collections were made from a 10-50 m wide area along the bank. The slope was 0-3°. Vegetation was sparse and the site was exposed to wind and rain erosion.

3YE214

Located on the eastern edge of Carter Creek just south of the eastern point of the Carter Cove was a site usually inundated by the conservation pool. Artifacts extend 5 m into the land for 50 m along the bank. The material was eroding due to wave action of the conservation pool.

3YE215

Now on an irregular island located in the slough area where the Fourche La Fave bends north to a most northern extent is a site extending 150 x 40 m. The area is barren except for tree stumps and grass and has a slope of 0-5°. The cultural material is exposed to wind and rain erosion due to the drawdown of the lake.

3YE216

On a sandbar created by the cutting off of an old river meander forming an oxbow channel is a site containing lihtic and ceramic remains. It is approximately 200 sq m in area running for 100 m back from the terrace edge along the river shoreline and into the meander banks. The site may contain the remains of a midden. Exposed tree roots on the site suggest erosion along the terrace banks.

3YE217

The artifactual remains at this site consisted of a sparse lithic scatter on a small rise in the Fourche La Fave floodplain. The site extends 30 x 15 m near the western shore of a south extending inlet. Some sandstone was present. No active erosion was noted at the site.

3YE218

Due west of 3YE209, across the inlet and along the south shore of the Fourche La Fave is a site which produced materials from an area 25 x 15 m. The ground was sandy with cracked sandstone and miscellaneous rock debris scattered over the surface. Some erosion was noted along the terrace banks.

3PE48

This site is located west of Carden Point just east of 3YE155 on the north bank of the Fourche La Fave. The site is a knoll-like structure now exposed to rain erosion. It is approximately 40 x 40 m in extent with a slope of 35-40° and no vegetation. Erosion by wind and rain is destroying the site.

3PE49

This large rectangular site approximately 100 x 20 m borders the present shoreline of around 330 ft AMSL. The site is totally submerged during the year, and is totally bare of vegetation. A concentrated lithic scatter was found. The ground slope is 0-3°.

3PE50

At the edge of the conservation pool on a rounded point south of the County Line Recreation area, this site extends 120 m along the point and 30 m from the edge of the conservation pool to the present water level. Much of the area was characterized by a red/brown silty clay covered with cracked sandstone. The slope ranged from 5-20° near the water edge. Areas of the site appear to be intermittently submerged.

3PE51

Due east of 3PE50 and located on an elevated terrace edge of a remnant creek channel were sparsely distributed cultural remains. Areal extent of the site was 25 x 20 m. The surface was red silt clay with black gravel concentrations which were densest at the terrace edge and on the 30° sloping terrace bank. Small amounts of cracked sandstone were present. No active erosion was observed.

3PE52

This site, yielding two lithic pieces found two feet apart, is lcoated at conservation pool edge, 200 m northeast of 3PE51. The site is a slightly elevated sandy area inhabited by brush and willow trees. Close to the edge of the conservation pool were concentrations of red and black gravel. One large cracked sandstone fragment was present. Some erosion, deposition and redeposition due to wave action were noted.

3PE53

Directly across the remnant stream channel from 3PE51, this site sits on a small knoll of brown sandy loam with slopes of 10-20° on the north and west sides. Cultural material was collected over an area 15 x 15 m. Large and small pieces of cracked sandstone were observed in association with artifactual remains. No active erosion was noted.

3PE54

This site located about 150 m east of 3PE52 sits on a raised knoll of loam jutting out from the edge of the conservation pool. It yielded material over an area 40 x 30 m. Cracked sandstone fragments and small black gravel concentrations were noted. Away from the water edge are brush and small willow trees. There were 5° slopes on all sides of the knoll. Erosion and redeposition due to wave action was observed.

3PE55

In the Fourche La Fave floodplain 200 m north of the river channel and south of 3PE54, a site sits on a small rise and extends 35 x 15 m. The rise consists of brown silt sand scattered with black gravel and small amounts of cracked sandstone. There is a slight 2-3° slope on all sides of the rise. Past erosion was evidenced by clay surface soil.

3PE56

A large multicomponent site, bordering Brush Creek on the west and the conservation pool to the north and east, is located on the south side of the Fourche La Fave. This site, called Crapshooters Point by some residents is primarily a large built up sand and gravel bar leading from steep slopes to the south out into the reservoir. Collections were made from an area nearly 7,000 m^2. Slopes were 10-20° at water's edge to the north and east and 15° to the west. Erosion was noted along the terrace banks. The site has been continuously collected by amateurs.

3PE57

This site is a slight scatter of cultural material located east of 3YE56 on the east bank of the point of land. Collections were made from an area approximately 100 x 10 m. The slopes were 0-3°. Silting over due to wind drifts of soil extended over the entire site.

3PE58

This site is located along the west bank of Brush Creek from the point where the creek enters the conservation pool to its junction with the Fourche. The areal extent is 100 m wide and the slope is 0-30°. No vegetation was present and the site is subject to siltation due to the wear action of the lake.

3PE59

Approximately 50 m from the vegetation line, this site is located south and east of the County Line Recreation Area. The areal extent is approximately 50 x 30 m with a slope of 0-5°. There is a cover of sandstone debris over an orangish-brown soil, or subsoil, as it appears it is the subsoil that is exposed due to rain runoff. Gullies are present on the site.

3PE60

This site, a large rise near the shoreline of the lake, extends approximately 100 x 80 m with a slope of 0-5°. It is located east of the County Line Recreation Area and about ½ mile west of Cedar Gap. The site is characterized by large amounts of sandstone and chert debris. It is exposed to the elements with no cover, resulting in erosion.

3PE61

Just east of 3PE60, this site is also characterized as a rise along the shoreline littered with sandstone and chert debris. The areal extent is about 40 x 40 m with a slope of 0-5°. A Select collection was made on this site, which had previously been collected by amateurs. This site also is exposed to wind and rain, resulting in erosion.

3PE62

This site is loated ¼ mile west of Cedar Gap along what is now the shoreline of the lake. The site is a small scatter of lithic debris including sandstone fragments and chert debitage. The soil is dark brown and silty, probably by deposition. A select collection was made. The site is now eroding due to rain and wind.

3PE63

Located just east of Cedar Gap and south, the site is a small 20 x 20 m scatter of chert and sandstone debris with a slope of 0-10°. The site contained few diagnostic artifacts due to previous collecting. Erosion due to rain has resulted in damage to the site.

3PE64

Similar to 3PE63, this site extends 20 x 20 m. It is located just east of 3PE63, and west and south of Cedar Gap. This site is covered in exposed tree stumps. The soil is orange-brown, with a slope of 0-10°. Erosion due to exposure to wind and rain and damage by amateur collecting has occurred.

3PE65

This site consists of a very light scatter of cultural material. It is located just west of the Quarry Cove boat dock. Approximately 75 x 50 m in extent, the site stretches from the west bank of a small intermittent stream west along the tree line down to the shore. Erosion has occurred here.

3PE66

The location of this site is in the wide expanse between Cedar Gap And County Line Recration Area, north of site 3PE62. It is a small 20 x 20 m circular area with a very light scatter of material. Small amounts of sandstone fragments were noted. Erosion due to heavy rain and wind is destroying the site.

3PE67

Located on what appears to be the west bank of Cedar Gap Branch, this site extends 50 x 50 m. It is just south of the Quarry Cove stretching west about an eighth of a mile. The slope is 0-5°. It is covered in tree stumps with an orange-brown soil cover, which has been exposed to erosion.

3PE68

This site is located slightly south and west of 3PE56 along a bend of Brush Creek where it begins to enter the southern extension of the Fourche floodplain. A small lithic scatter was recovered from a light colored sandy area 20 x 15 m. Small fragments of cracked sandstone were noted on the site as were willow trees and vegetative debris.

3PE69

This 70 x 30 m site consists of a point extending into the river on the south bank approximately ½ mile east of Brush Creek. It contains chert and sandstone debitage and has a slope of 0-5°.

3PE70

Although an island, this site is believed to be the portion of the west bank where Cedar Gap Branch joins the Fourche River. The island's extent is 50 x 40 m. It contains large amounts of lithic debris. The The extent of erosion here is unknown due to frequent inundation. The site has been recently collected by amateurs.

3PE71

This site's locale is on the south side of the Fourche La Fave, ½ mile east of Brush Creek. It is one of two knoll-like features in the area and it contains large amounts of sandstone and chert debris. The areal extent of the site is 20 x 50 m with a slope that varies from 0 to 35°. The soil is orange-brown. The site is exposed and erosion was noted.

3PE72

This site, the other one of the two knoll-like features in the area, extends 30 x 15 m with a slope range of 5-30°. It has a reddish clayey surface which is covered with a fairly dense lithic scatter and littered with cracked sandstone fragments as well. The greatest erosional danger here is exposure to wind and rain and intermittent submergence. Its clay-like surface denotes past erosional processes.

3PE73

This site is a lithic scatter extending 30 x 15 m on an exposed mudflat just south of the river channel and about 300 m east of 3PE72. It is bordered on the east by a north-running stream. The surface is a brown sandy loam and the average slope of the site is 5°. Cracked sandstone is distributed throughout the site. The site is eroding, especially at certain points along the water's edge.

3PE74

Slightly above water, site 3PE74 extends 30 x 10 m due west from 3PE73 on the south side of the river channel. It produced a sparse lithic scatter which was collected along the river channel terrace edge. Exposed tree roots are present from the terrace edge to 10 m south. The river terrace bank is fairly steep with a slope of about 45°. The site is eroding along the river terrace edge, as indicated by the exposed tree roots.

3PE75

This site is part of a large island exposed by the drawdown, bordering the north side of the river channel directly across the channel from 3PE69. Two collections were made from an area of 525 sq m. Tree stumps and exposed roots lined the southern part of the site (which bordered the river). Cracked sandstone occurs mostly on the north and west extremities. There is a slight slope of 5-10° over the site. It is eroding along southern and western boundaries and is normally submerged year round.

3PE76

This site lies 30 m to the north of 3PE75 and may in fact be part of the same original site. It is a partially exposed island running north-south 50 x 10 m. The soil surface is brown sandy loam with some exposed red clay, especially along terrace edges and banks. The slope ranges from 10-20° at the water's edge, and flat near the middle of the site. Cracked sandstone was observed at water's edge. Erosion along the western edge was indicated by exposed tree roots. The red clay surface also denotes removal of surface brown sandy loam in spots.

3PE77

This is another island site 50 m northeast of 3PE76. It is partially covered but yielded sparse lithic scatter over an area 30 x 50 m. Miscellaneous rock fragments are present in a soil of muddy silt laom. No erosion was noted.

3PE78

This site, an island now, but probably the same site as 3PE49, is divided by a stretch of water 50 m wide. It is barren except for a row of tree stumps running north-south across the [illegible]. Large amounts of lithic debitage are scattered over the 20 x 30 m extent of the site. The slope is 0-5°.

3PE79

This, too is a small island site just south of 3PE78 with lithic and ceramic remains scattered over an area 25 x 15 m. Most of the ceramics collected came from an area along the northwest bank which was studded with tree stumps. The slope ranged from 2° in the center to 20° at the banks. Erosion is occurring along the banks, as indicated by exposed tree roots.

3PE80

This is a very small exposed island site, 15 x 5 m. It is very similar to 3PE79, which lays less than 100 m to the west. The site yielded sparse remains. The slope ranged from 2-5°. Tree stumps lining the shore edge form a continuous line with those at 3PE79, probably denoting a terrace line for a remnant stream or river channel. No active erosion was noted at the site.

3PE81

Two islands separated by 5 m of water compose this site. 3PE79-3PE82 are likely all part of the same site. Sandstone and chert both were collected from this site. It extends 20 x 40 m with a slope of 0-2°. Erosion due to wave action was noted.

3PE82

This small hourglass-shaped expanse of land exposed by the drawdoen stretches 35 x 10 m due south of P292-181. Some cracked sandstone was noted. There is a 3-5° slope over the entire expanse and tree stumps and brush line the edges, especially to the east and south. Some erosion was noted along the edges dur to present wave action.

3PE83

This site borders the north side of Fourche channel and lies less than 60 m due west from 182. This was a long narrow 100 x 25 m expanse of brown sandy loam soil running norwest to southeast. The center portions of the exposed area had practically no slope, while the banks along water's edge reached slopes of 300°. Tree stumps lined the banks, especially the west and south ends. No active erosion was noted.

3PE84

Extending approximately 20 x 10 m this site is on the east bank of the Fourche La Fave River near where it bends north to its most northern extreme. Little material was recovered due to adverse collection conditions. Stumps line the west bank of the site. Erosion due to rain and wind was noted.

3PE85

Along the terrace edge of Brush Creek where it enters the Fourche floodplain is the situation of this site. Four collections were made with all material recovered from amongst tree stumps lining the terrace edge. The terrace tops are relatively flat, although the banks are steep with up to 50° slopes. Cracked sandstone was noted and erosion is present along the stream terrace edge and bank.

Table D.1. Site characteristics inventory of Nimrod Lake survey

Site Number	General Chronology	Site Function	Site Size(m^2)	Topographic Setting*	Soil Association**	Distance to Fourche (m)	Elevation (ft.)
3YE70	Woodland/Caddoan	Basecamp	33,250	RT1	Ps	0	335
3YE71	Woodland/Caddoan	Basecamp	2,400	RT2	C1/A1	600	342
3YE72	Unknown	Special	30	STW	A1	550	342
3YE73	Archaic	Basecamp	100	STW	A1	550	342
3YE74	Woodland	Special	10	STW	A1	400	342
3YE75	Unknown	Special	10	STW	A1	350	342
3YE76	Unknown	Basecamp	200	RTW	Ps	900	342
3YE77	Unknown	Special	20	RTM	Ps	750	342
3YE78	Unknown	Special	250	RTM	Ps	850	360
3YE79	Archaic	Basecamp	5,000	RTM	Ps	110	360
3YE80	Unknown	Unknown	25	RTM	Ps	400	342
3YE81	Unknown	Isolated	Unknown	RTM	Ps	900	342
3YE82	Woodland/Caddoan/Hist.	Basecamp	10,000	RTM	Ps	300	340
3YE83	Unknown	Unknown	100	STW	Ps	400	342
3YE84	Unknown	Unknown	25	STW	Ps	325	342
3YE85	Archaic	Isolated	Unknown	STW	Ps	200	342
3YE86	Unknown	Special	15	RTM	Ps	750	342
3YE87	Unknown	Special	Unknown	RTM	Ps	600	342
3YE88	Archaic	Basecamp	100	RTM	Ps	500	342
3YE89	Unknown	Basecamp	9,400	RTM	Pf	20	340
3YE90	Woodland	Basecamp	900	RTW	Ps	50	352
3YE91	Archaic/Woodland	Basecamp	3,100	RTM	Ps	800	340
3YE92	Archaic	Isolated	Unknown	STW	A1	650	342
3YE93	Unknown	Special	20	STW	A1	500	340
3YE94	Unknown	Special	30	STW	A1	650	342
3YE95	Unknown	Unknown	25	STW	A1	375	342
3YE96	Unknown	Unknown	Unknown	STW	A1	400	342
3YE97	Unknown	Special	25	STW	A1	600	342
3YE98	Unknown	Special	100	STW	A1	950	342
3YE99	Unknown	Basecamp	75	STW	C1	800	342
3YE100	Archaic	Basecamp	100	STW	Pf	200	340

* See key in Table 1, page 78

** See key in Table 2, page 81

Table D.1. Site characteristics inventory of Nimrod Lake survey, continued

Site Number	General Chronology	Site Function	Site Size(m^2)	Topographic Setting*	Soil Association**	Distance to Fourche (m)	Elevation (ft.)
3YE101	Archaic	Special	60	RTM	Al	580	345
3YE102	Unknown	Special	2	STW	Ps	550	340
3YE103	Archaic/Woodland	Basecamp	70	RTW/RTM	Ps	325	340
3YE104	Unknown	Special	20	RTM	Ps	400	340
3YE105	Unknown	Isolated	12	RTM	Ps	400	340
3YE106	Unknown	Special	40	STW	Al	700	340
3YE107	Unknown	Special	10	STW	Al	550	340
3YE108	Unknown	Basecamp	3,755	RTW	Pf	5	340
3YE109	Archaic/Woodland	Basecamp	1,000	STF	Al	600	340
3YE110	Unknown	Basecamp	900	STF	Al	350	340
3YE111	Unknown	Basecamp	2,500	RTW/STW	Pf	10	340
3YE112	Unknown	Basecamp	Unknown	STW	Pf	150	342
3YE113	Unknown	Special	Unknown	STW/RTW	Wl/Pf	100	342
3YE114	Unknown	Special	400	STW	Pf	225	342
3YE115	Unknown	Special	375	STW	Wl/Pf	175	342
3YE116	Unknown	Unknown	100	STW	Ps	75	340
3YE117	Unknown	Basecamp	Unknown	STW	Ps	150	340
3YE118	Archaic	Isolated	-	STW	Ps	25	340
3YE119	Unknown	Special	40	STW	Ps	100	340
3YE120	Unknown	Unknown	16	STW	Ps	150	340
3YE121	Unknown	Unknown	10	STW	Ps	50	340
3YE122	Unknown	Basecamp	50	RTW	Ps	50	340
3YE123	Unknown	Special	60	RTW	Ps	10	342
3YE124	Unknown	Unknown	7,500	RTW/STW	Ps/Al	0	342
3YE125	Archaic	Isolated	Unknown	STW	Pf	600	340
3YE126	Unknown	Basecamp	250	STF	Al	500	340
3YE127	Unknown	Basecamp	34,375	RT2/STF	Al	20	340
3YE128	Unknown	Special	625	RT1	Al	5	330
3YE129	Unknown	Special	3,750	RT2/ST	Hl	30	340
3YE130	Unknown	Special	20	ST	Hl	220	350
3YE131	Unknown	Isolated		ST	Cl	550	350
3YE132	Unknown	Special	30	ST	Cl	400	350
3YE133	Prehistoric/Historic	Special	50	ST	Cl	325	350

* See key in Table 1, page 78

** See key in Table 2, page 81

Table D.1. Site characteristics inventory of Nimrod Lake survey, continued

Site Number	General Chronology	Site Function	Site Size(m^2)	Topographic Setting*	Soil Association**	Distance to Fourche (m)	Elevation (ft.)
3YE134	Unknown	Basecamp	200	RT2	Cl	100	350
3YE135	Archaic	Special	200	ST	Ps	275	350
3YE136	Unknown	Basecamp	7,500	RT2	Cl	150	350
3YE137	Archaic-Woodland	Basecamp	1,500	RT2	Cl	200	350
3YE138	Archaic	Basecamp	3,500	RT2	Cl	350	350
3YE139	Archaic/Woodland	Basecamp	1,000	RT2	Cl	500	350
3YE140	Archaic-Woodland	Basecamp	100	ST	Al	650	335
3YE141	Woodland/Caddo	Basecamp	1,000	ST	Al	600	335
3YE142	Woodland	Basecamp	100	ST/RT2	Ps	650	335
3YE143	Woodland	Basecamp	2,750	STF	Ps	135	330
3YE144	Archaic	Special	200	RT1	Ps	10	330
3YE145	Unknown	Special	100	STF	Al	550	335
3YE146	Archaic	Basecamp	100	STF	Al	800	335
3YE147	Unknown	Basecamp	800	STF	Al	400	335
3YE148	Archaic-Woodland	Basecamp	3,300	STF	Ps	300	335
3YE149	Unknown	Basecamp	200	STF	Ps	300	335
3YE150	Unknown	Basecamp	500	RT1/STF	Ps	20	330
3YE151	Unknown	Basecamp	1,000	STF	Ps	175	330
3YE152	Prehistoric/Historic	Special	400	ST/RT2	Wl/Ac	700	340
3YE153	Unknown	Unknown	800	RT2	Wl/Ac	600	340
3YE154	Woodland	Basecamp	100	RTM	Ac/Ps	375	335
3YE155	Unknown	Basecamp	600	RTM	Ps	200	330
3YE156	Archaic Woodland	Basecamp	1,800	RT1	Ps	10	330
3YE157	Unknown	Basecamp	400	ST	Cf	700	330
3YE158	Unknown	Basecamp	7,550	STW	Hl/Pf	450	340
3YE159	Unknown	Basecamp	1,000	STW	Wl/Pf	380	340
3YE160	Woodland	Basecamp	50	STW	Pf	100	340
3YE161	Unknown	Special	50	STW	Wl	800	335
3YE162	Unknown	Special	460	STW	Wl	675	335
3YE163	Unknown	Special	450	STW	Pf	400	330
3YE164	Archaic	Basecamp	900	STW	Pf	500	335

* See key in Table 1, page 78

** See key in Table 2, page 81

Table D.1. Site characteristics inventory of Nimrod Lake survey, continued

Site Number	General Chronology	Site Function	Site Size(m^2)	Topographic Setting*	Soil Association**	Distance to Fourche (m)	Elevation (ft.)
3YE165	Woodland	Basecamp	2,600	STW	Pf	250	335
3YE166	Unknown	Basecamp	150	RTW	Pf	50	340
3YE167	Unknown	Basecamp	Unknown	RTW	Ps	250	340
3YE168	Unknown	Basecamp	70	RTW	Ps	5	340
3YE169	Archaic	Isolated	1	RTW	Ps	5	340
3YE170	Unknown	Special	250	RTW	Ps	5	340
3YE171	Unknown	Special	4	STF	Al	950	340
3YE172	Woodland	Basecamp	2,000	FP	Al	750	340
3YE173	Woodland	Basecamp	200	RT1	Al	175	340
3YE174	Woodland	Basecamp	420	RT1	Al	100	340
3YE175	Unknown	Basecamp	2,500	RT1	Al	75	340
3YE176	Prehistoric/Historic	Basecamp	100	RT1/STF	Pf	5	335
3YE177	Archaic/Woodland	Basecamp	800	STF	Al	600	335
3YE178	Woodland	Basecamp	200	RT1/STF	Ps	85	335
3YE179	Woodland	Basecamp	270	STF	Ps	275	335
3YE180	Woodland	Basecamp	600	STF	Ps	300	335
3YE181	Unknown	Special	200	STF	Ps	325	335
3YE182	Prehistoric/Historic	Special	450	STF	Ps	325	335
3YE183	Prehistoric/Historic	Special	700	ST	W1/A1	700	340
3YE184	Prehistoric/Historic	Special	1,500	ST/RT2	W1	650	340
3YE185	Unknown	Special	750	RT2/ST	W1	700	340
3YE186	Unknown	Special	150	S	W1	800	340
3YE187	Unknown	Basecamp	1,200	RT2/ST	Al	200	340
3YE188	Unknown	Special	450	RT2/ST	W1	600	340
3YE189	Unknown	Special	1	ST	W1	500	340
3YE190	Woodland/Historic	Basecamp	2,225	RT2/ST	W1	300	340
3YE191	Unknown	Special	300	ST	W1	700	340
3YE192	UNknown	Special	150	ST	W1	750	340
3YE193	Prehistoric/Historic	Special	320	ST	Ac	675	335
3YE194	Woodland/Historic	Basecamp	225	RTM	Ac	200	335
3YE195	Woodland/Caddo	Basecamp	300	RTM	Ac	250	335

* See key in Table 1, page 78

** See key in Table 2, page 81

Table D.1. Site characteristics inventory of Nimrod Lake survey, continued

Site Number	General Chronology	Site Function	Site Size(m	Topographic Setting*	Soil Association**	Distance to Fourche (m)	Elevation (ft.)
3YE196	Unknown	Special	600	RTM	Ac	400	340
3YE197	Historic	-	80	STF	Ac	675	335
3YE198	Woodland	Basecamp	450	STF	Ac	525	335
3YE199	Unknown	Unknown	300	STF	Ac	525	335
3YE200	Woodland	Basecamp	450	STF	Ac	500	335
3YE201	Unknown	Basecamp	1,875	STF	Ac	475	335
3YE202	Unknown	Special	1,200	ST	Cf	1,000	340
3YE203	Unknown	Basecamp	375	FP	Ps	425	335
3YE204	Archaic/Woodland/Caddo	Basecamp	2,400	STF/RT1	Ps	25	335
3YE205	Woodland	Basecamp	800	RT1/ST	Ps	5	340
3YE206	Unknown	Basecamp	600	RT1	Ps	5	340
3YE207	Caddoan	Basecamp	250	RT1	Ps	5	335
3YE208	Woodland	Basecamp	900	RT2/ST	Al	200	340
3YE209	Unknown	Special	800	RTWSTW	Ps	0	330
3YE210	Woodland/Caddoan	Basecamp	41,000	RT1	Ps	0	335
3YE211	Woodland/Caddoan	Basecamp	1,800	RT2/ST	Ps	0	340
3YE212	Woodland/Caddoan	Basecamp	400	RT1	Ps	0	335
3YE213	Archaic/Woodland/Caddo	Basecamp	45,000	RT1	Ps	20	340
3YE214	Woodland	Basecamp	500	RT1	Hl	600	330
3YE215	Archaic/Woodland/Hist.	Basecamp	300	RTM/STF	Ac	50	335
3YE216	Woodland/Caddoan/Hist.	Basecamp	400	RTM/RT1	Ps	0	335
3YE217	Unknown	Basecamp	450	ST	Ps	200	360
3YE218	Unknown	Basecamp	300	RTW	Ps	0	360
3PE48	Woodland/Caddoan	Basecamp	1,000	RT1	Ps	10	330
3PE49	Archaic/Woodland	Basecamp	2,300	STF/RT2	Ps	0	330
3PE50	Archaic/Woodland/Hist.	Basecamp	5,200	RT2	W1	550	340
3PE51	Unknown	Special	400	RT2	W1	750	335
3PE52	Woodland	Special	1	RT2	W1	900	340
3PE53	Unknown	Special	225	RT2	W1	725	340
3PE54	Unknown	Basecamp	225	RT2	W1	800	340
3PE55	Unknown	Basecamp	525	RT2	Ps	175	335

* See key in Table 1, page 78
** See key in Table 2, page 81

Table D.1. Site characteristics inventory of Nimrod Lake survey, concluded

Site Number	General Chronology	Site Function	Site Size(m^2)	Topographic Setting*	Soil Association**	Distance to Fourche (m)	Elevation (ft.)
3PE56	Archaic/Woodland/Caddo	Basecamp	8,000	RT1/STF	Ps	750	335
3PE57	Woodland	Basecamp	4,000	RT1	Al	0	330
3PE58	Archaic-Woodland	Basecamp	1,000	RT1/ST	Cf	0	340
3PE59	Woodland	Basecamp	1,500	RT2	W1	650	340
3PE60	Unknown	Basecamp	4,500	RT2	W1	600	350
3PE61	Unknown	Basecamp	1,500	RT2	W1	500	350
3PE62	Unknown	Basecamp	400	RT2	W1	475	340
3PE63	Archaic	Basecamp	400	RT2	Ps	400	340
3PE64	Unknown	Unknown	625	RT2	Ps	200	340
3PE65	Unknown	Basecamp	1,500	RT1	Ps	10	330
3PE66	Unknown	Special	400	RT2	Ps	550	340
3PE67	Unknown	Special	2,500	RTR	Ps	300	340
3PE68	Archaic	Special	300	ST	Ps	250	340
3PE69	Archaic+Woodland	Basecamp	2,100	RT	Ps	20	340
3PE70	Archaic/Woodland	Basecamp	1,500	RT1/STF	Ps	0	330
3PE71	Archaic	Basecamp	1,000	RT2	Ps	25	340
3PE72	Archaic	Basecamp	450	RT2	Ps	25	340
3PE73	Woodland/Historic	Basecamp	450	RT1/STF	Ps	0	330
3PE74	Unknown/Historic	Special	300	RT1	Ps	10	335
3PE75	Unknown	Basecamp	525	RT1/ST	Ps	0	330
3PE76	Unknown	Special	500	STF	Ps	125	330
3PE77	Archaic	Basecamp	1,500	STF	Ps	400	330
3PE78	Archaic/Woodland	Basecamp	600	STF	Ps	450	330
3PE79	Woodland	Basecamp	375	STF	Ps	400	330
3PE80	Unknown	Special	75	STF	Ps	450	330
3PE81	Unknown	Special	400	STF	Ps	200	330
3PE82	Woodland	Basecamp	350	STF	Ps	75	330
3PE83	Woodland/Caddo	Basecamp	2,500	RT1/STF	Ps	0	340
3PE84	Unknown	Special	200	RT1	Ps	10	335
3PE85	Woodland/Caddo/Hist.	Basecamp	2,500	RT1/STF	Cf	50	340

* See key in Table 1, page 78
** See key in Table 2, page 81

Table D.2. Site collection inventory of Nimrod Lake survey.

Site Number	Type of Collection	Lithics	Ceramics Prehistoric	Ceramics Historic	Other Elements
3YE70A1	Select	100	17	0	2 faunal, 4 floral
A2	Controlled	4	0	0	
B1	Select	88	34	0	
B2	Controlled	8	19	0	
C1	Select	58	5	0	
C2	Select	5	38	0	
3YE71A	Select	58	2	0	
B	Controlled	7	0	0	
C	Controlled	76	0	0	
3YE72	Select	37	0	0	
3YE73	Select	34	0	0	
3YE74	Select	19	0	0	
3YE75	Select	14	0	0	
3YE76A	Select	10	0	0	
B	Select	3	0	0	
3YE77	Select	5	0	0	
3YE78	Select	21	0	0	
3YE79A	Select	65	0	0	
B	Select	6	0	0	
3YE80	None				
3YE81	Select	11	0	0	
3YE82	Select	14	15	0	
3YE83	None				
3YE84	None				
3YE85	Select	1	0	0	
3YE86	Select	11	0	0	
3YE87	Select	13	0	0	
3YE88	Select	39	0	0	
3YE89A	Select	94	0	0	
B	Select	106	0	0	
3YE90	Select	19	1	0	
3YE91C1	Controlled	10	3	0	
C2	Controlled	5	0	0	
C4A	Controlled	0	12	0	
C4B	Controlled	10	0	0	
D1A	Controlled	47	0	0	
D1B	Select	59	0	0	
E1	Select	18	0	0	
F1	Controlled	8	0	0	
3YE92	Select	1	0	0	

Table D.2. Site collection inventory of Nimrod Lake survey, continued

Site Number	Type of Collection	Lithics	Ceramics		Other Elements
			Prehistoric	Historic	
3YE127C	Select	19	0	0	
D	Select	15	6	0	
3YE128	Select	6	0	0	
3YE129	Select	28	0	0	
3YE130	Select	5	0	0	
3YE131	Select	1	0	0	
3YE132	Select	10	0	0	
3YE133	Select	14	0	9	1 iron, 8 glass
3YE134A	Select	54	0	0	
B	Select	36	0	0	
3YE135	Select	3	0	0	
3YE136A	Select	62	0	0	
B	Select	17	0	0	
3YE137A	Select	41	0	0	
B	Select	33	0	0	
C	Select	43	0	0	
D	Select	10	0	0	
E	Select	39	0	0	
3YE138A	Select	50	0	0	
B	Select	22	0	0	
C	Select	42	0	0	
3YE139A	Select	37	6	0	
B	Select	40	0	0	
C	Controlled	39	0	0	
D	Controlled	17	0	0	
3YE140	Select	22	0	0	
3YE141	Select	40	25	0	
3YE142	Select	4	6	0	
3YE143A	Select	45	1	0	
B	Select	11	2	0	
3YE144	Select	3	0	0	
3YE145	Select	28	0	0	
3YE146	Select	4	0	0	
3YE147	Select	77	0	0	
3YE148A	Select	36	0	0	
B	Select	56	0	0	
C	Select	66	0	0	
3YE149	Select	16	0	0	
3YE150	Select	13	0	0	
3YE151A	Select	5	0	0	

Table D.2. Site collection inventory of Nimrod Lake survey, continued

Site Number	Type of Collection	Lithics	Ceramics		Other Elements
			Prehistoric	Historic	
3YE93	None				
3YE94	None				
3YE95	Select	1	0	0	
3YE96	None				
3YE97	Select	9	0	0	
3YE98	Select	15	0	0	
3YE99	Select	53	0	0	
3YE100	Select	100	0	0	
3YE101	Select	14	0	0	
3YE102	Select	6	0	0	
3YE103	Select	19	3	0	
3YE104	Select	3	0	0	
3YE105	Select	1	0	0	
3YE106	Select	8	0	0	
3YE107	Controlled	4	0	0	
3YE108A	Select	27	1	0	
B	Controlled	52	5	0	2 faunal
C	Controlled	9	5	0	
3YE109A	Select	4	2	0	
B	Select	61	1	0	
C	Select	48	0	0	
3YE110	Select	14	1	0	
3YE111	Select	14	0	0	
3YE112	Select	156	0	1	
3YE113	Select	17	0	0	
3YE114	Select	6	0	0	
3YE115	Select	16	0	0	
3YE116	None				
3YE117	Select	81	0	0	
3YE118	Select	1	0	0	
3YE119	Select	5	0	0	
3YE120	None				
3YE121	None				
3YE122	Select	37	0	0	
3YE123	None				
3YE124	Select	31	0	0	
3YE125	Select	1	0	0	
3YE126	Select	24	0	0	
3YE127A	Select	53	0	0	
B	Select	23	1	0	

Table D.2. Site collection inventory of Nimrod Lake survey, continued

Site Number	Type of Collection	Lithics	Ceramics		Other Elements
			Prehistoric	Historic	
3YE151B	Select	37	0	0	
3YE152	Select	4	0	10	
3YE153	Select	8	0	0	
3YE154	Select	15	11	0	
3YE155	Select	19	0	0	
3YE156	Select	62	0	0	
3YE157	Select	109	0	0	
3YE158A	Select	187	0	0	
B	Select	44	0	0	
3YE159	Controlled	19	0	0	
3YE160	Select	6	4	0	
3YE161	Select	5	0	0	
3YE162	Select	6	0	0	
3YE163	Select	4	0	0	
3YE164	Select	44	0	0	
3YE165A	Select	65	1	0	
B	Select	39	0	0	
3YE166A	Select	28	0	0	
B	Select	103	0	0	
3YE167	Select	68	0	0	
3YE168A	Select	9	0	0	
B	Select	78	0	0	
3YE169	Select	1	0	0	
3YE170	Select	12	0	0	
3YE171	Controlled	2	0	0	
3YE172	Controlled	1	1	0	
3YE173	Controlled	9	2	0	
3YE174A	Select	153	0	0	
B	Select	62	0	0	
3YE175	Select	20	0	0	
3YE176	Controlled	69	0	1	
3YE177	Select	64	0	0	
3YE178	Controlled	4	2	0	
3YE179A	Select	13	13	0	
B	Controlled	0	26	0	
3YE180	Controlled	11	4	0	
3YE181	Controlled	1	0	0	
3YE182	Controlled	5	0	0	1 iron fragment
3YE183	Select	6	0	22	
3YE184	Select	64	0	2	

Table D.2. Site collection inventory of Nimrod Lake survey, continued

Site Number	Type of Collection	Lithics	Ceramics Prehistoric	Ceramics Historic	Other Elements
3YE185	Select	22	0	0	
3YE186	Controlled	5	0	0	
3YE187	Select	62	0	0	
3YE188	Controlled	9	0	0	
3YE189	Controlled	6	0	0	
3YE190A	Select	72	0	0	
B	Select	34	1	4	
3YE191	Controlled	4	0	0	
3YE192	Controlled	4	0	0	
3YE193	Select	10	0	11	6 pieces of iron
3YE194A	Select	41	0	0	2 pieces of iron
B	Select	45	1	0	1 piece of iron
3YE195	Select	58	24	0	
3YE196	Controlled	13	0	0	
3YE197	Select	0	0	7	4 iron pieces, 1 faunal
3YE198	Controlled	0	1	0	
3YE199	Controlled	2	0	0	
3YE200	Controlled	5	3	0	
3YE201A	Select	48	0	0	
B	Controlled	32	0	0	
3YE202	Select	21	0	0	
3YE203	Select	43	0	0	
3YE204A	Select	141	9	0	
B	Select	51	0	0	
C	Select	19	0	0	
3YE205	Select	40	2	0	
3YE206	Select	147	0	0	1 faunal
3YE207A	Select	18	41	0	
B	Select	17	41	0	
3YE208	Select	42	3	0	
3YE209	Select	12	0	0	
3YE210A	Select	61	23	0	
B	Select	20	12	0	
3YE211A	Select	82	14	0	
B	Controlled	8	18	0	
3YE212	Select	21	28	0	
3YE213A1	Select	16	26	0	
A2	Controlled	9	45	0	
B1	Select	15	9	0	
B2	Controlled	0	32	0	

Table D.2. Site collection inventory of Nimrod Lake survey, continued

Site Number	Type of Collection	Lithics	Ceramics		Other Elements
			Prehistoric	Historic	
3YE213C	Controlled	51	49	0	
D	Controlled	0	18	0	
E	Select	121	68	1	
3YE214	Select	67	1	0	
3YE215A	Select	37	0	0	
B	Select	50	0	3	
C	Select	30	0	0	
3YE216A1	Controlled	0	5	0	
A	Select	35	65	2	
B	Select	55	9	0	
3YE217	Select	131	0	0	
3YE218	Select	121	0	0	
3PE48	Select	34	3	0	
3PE49A	Select	60	1	0	
B	Select	144	1	0	
3PE50	Select	92	18	1	
3PE51	Select	16	0	0	
3PE52	Controlled	2	0	0	
3PE53	Controlled	6	0	0	
3PE54	Select	38	0	0	
3PE55	Select	17	0	0	
3PE56A1	Select	30	0	0	
A2	Select	20	5	0	
B	Select	67	1	0	
C	Select	67	3	0	
D	Select	42	0	0	
E1	Select	37	9	0	
E2	Controlled	106	4	0	
3PE57	Select	20	9	0	
3PE58	Select	55	0	0	
3PE59	Select	38	0	0	
3PE60A	Select	54	0	0	
B	Select	41	0	0	
3PE61	Select	50	0	0	
3PE62	Select	61	0	0	
3PE63	Select	29	0	0	
3PE64	Select	24	0	0	
3PE65	Select	22	0	0	
3PE66	Select	10	0	0	
3PE67	Select	24	0	0	

Table D.2. Site collection inventory of Nimrod Lake survey, concluded

Site Number	Type of Collection	Lithics	Ceramics Prehistoric	Ceramics Historic	Other Elements
3PE68	Controlled	4	0	0	
3PE69	Select	37	0	0	
3PE70	Select	86	0	0	
3PE71	Select	81	0	0	
3PE72	Select	38	0	0	
3PE73	Select	20	0	0	1 iron rail
3PE74	Select	6	0	0	
3PE75A	Select	28	0	0	
B	Select	69	0	0	
3PE76	Select	18	0	0	
3PE77	Select	49	0	0	
3PE78	Select	51	8	0	
3PE79	Select	39	32	0	
3PE80	Select	11	0	0	
3PE81	Select	27	0	0	
3PE82	Select	55	8	0	
3PE83	Select	56	43	0	
3PE84	Select	3	0	0	
3PE85A	Select	53	2	0	
B	Controlled	1	0	0	1 floral
C	Select	21	1	2	
D	Select	45	3	0	

NOTE: A letter of the alphabet following a site number refers to a subsample recovered within that site (example: 3PE85A, B, C)

A number following a letter (subsample) refers to separate collections made within that subsample (example: 3YE70A1).

Table D.3. Lithic inventory of Nimrod Lake survey

Site Number	Bifacial Implements					Flakes			Groundstone				Cores and Misc. Reduction Flake	Cracked Sandstone	Unmodified Lithics	Total
	PPK's	Scrapers	Bifaces	Other	Total	Mod.	Unmod.	Total	Nutting Stone	Hammer Stone	Other Ground Stone	Total				
3YE70A1	1				1		93	93			1	1	2	2	1	100
3YE70A2											1	1	1	2		4
3YE70B1	3	1	1		5	3	46	49			1	1	10		23	88
3YE70B2						3	3	6					1		1	8
3YE70C1		1	1		2	3	41	44					4	8		58
3YE70C2		1			1										4	5
3YE72	0	0	0	0	0	2	32	34						3		37
3YE73	3	0	4	0	7	1	16	17	1	1		2		8		34
3YE74	2		1		3	1	14	15						1		19
3YE75	0	0	0	0		1	13	14								14
3YE76A						1	7	8						2		10
B						1		1	2			2				3
3YE77							5	5								5
3YE78			1		1	1	19	20								21
3YE79A	4				4		60	60								64
B	1		1		2	1	3	4								6
3YE81	1				1	4	6	10								11
3YE82			2		2	4	6	10	1			1		1		14
3YE85	1				1											1
3YE86							11	11								11
3YE87	1				1	1	9	10						2		13
3YE88	2	1	1		4	1	31	32		1	1	2	1			39
3YE89A	3	1			4	4	80	84					6			94
B	1	1	2		4	4	96	100					2			106
3YE90	4				4		13	13	1			1	1			19
3YE91C1	1				1	2	4	6	1			1	2			10
3YE91C2	3				3	1	1	2								5
3YE91C4B	3				3		2	2						5		10

Table D.3. Lithic inventory of Nimrod Lake survey, continued

Site Number	Bifacial Implements					Flakes			Groundstone				Cores and Misc. Reduction Flakes	Cracked Sandstone	Unmodified Lithics	Total
	PPK's	Scrapers	Bifaces	Other	Total	Mod.	Unmod.	Total	Nutting Stone	Hammer Stone	Other Ground Stone	Total				
3YE91D1A	11			1	12		24	24						11		47
3YE91D1B	11		3		14	6	34	40	1			1	1	3		59
3YE91E1	2				2	1	11	12					1	3		18
3YE91F1	2				2	2	3	5						1		8
3YE92	1				1											1
3YE95	1				1											1
3YE97						3	6	9								9
3YE98	2				2	2	11									15
3YE99			1		1	11	31	42		1		1	6	3		53
3YE100	3		2		5	7	84	91		1		1		3		100
3YE101	1				1	2	11	13								14
3YE102	1				1		1	1					3	1		6
3YE103	4				4	4	11	15								19
3YE104			1		1		2	2								3
3YE105							1	1								1
3YE106							8	8								8
3YE107			1		1		3	3								4
3YE108A	1				1		23	23	1	1	1	3				27
B	3				3	7	42	49								52
C						1	8	9								9
3YE109A						1	3	4								
B	1				1	2	56	58			1	1	1			61
C						3	43	46			1	1	1			48
3YE110	2				2	2	10	12								14
3YE111						1	7	8	1			1	3	1	1	14
3YE112	1				1	19	112	131	1	1		2	14	6	2	156
3YE113						1	11	12					1	3	1	17
3YE114	1				1		3	3						1	1	6

Table D.3. Lithic inventory of Nimrod Lake survey, continued

Site Number	Bifacial Implements					Flakes			Groundstone				Cores and Misc. Reduction Flakes	Cracked Sandstone	Unmodified Lithics	Total
	PPK's	Scrapers	Bifaces	Other	Total	Mod.	Unmod.	Total	Nutting Stone	Hammer Stone	Other Ground Stone	Total				
3YE115						2	8	10		1		1		1	4	16
3YE117	5		4		9	5	46	51					5	9	7	81
3YE118	1				1											1
3YE119	2	1			3		2	2								5
3YE122	1				1	2	28	30							6	37
3YE124				1	1	2	24	26	1			1	1		2	31
3YE125	1				1											1
3YE126	1				1		18	18	1			1	2	2		24
3YE127A	5				5	1	31	32	1			1	9	4	2	53
B						1	19	20					1	2		23
C	1		1		2		9	9					3		5	19
D	1				1	3	8	11			1	1			2	15
3YE128							4	4							2	6
3YE129						4	20	24					1		3	28
3YE130						1	4	5								5
3YE131	1				1											1
3YE132			1		1	1	8	9								10
3YE133	2				2	1	9	10					1		1	14
3YE134A	5		1		6	11	26	37		1		1	7	3		54
B	1		2		3	7	22	29	2			2	1	1		36
3YE135	1				1		2	2								3
3YE136A	1	1	2		4	5	41	46	1			1	6	4	1	62
B	1		1		2	1	9	10	1		1	2	2		1	17
3YE137A	1		2		3	8	24	32			2	2	3	1		41
B						6	19	25					4	3	1	33
C	2		1		3	6	26	32					4	3	1	43
D	1				1	1	5	6					2	1		10

Table D.3. Lithic inventory of Nimrod Lake survey, continued

Site Number	Bifacial Implements					Flakes			Groundstone				Cores and Misc. Reduction Flakes	Cracked Sandstone	Unmodified Lithics	Total
	PPK's	Scrapers	Bifaces	Other	Total	Mod.	Unmod.	Total	Nutting Stone	Hammer Stone	Other Ground Stone	Total				
3YE137E	2				2		31	31			2	2	4			39
3YE138A	2				2	6	34	40			1	1	5		2	50
B	3		1		4		14	14	1			1	3			22
C						4	30	34					5	2	1	42
3YE139A	2		1		3	4	16	20	1			1	13			37
B	1				1	8	26	34					1		4	40
C	1				1	4	30	34					2		2	39
D						1	14	15					2			17
3YE140	2				2	2	13	15					5			22
3YE141	6				6	10	22	32	1			1	1			40
3YE142	1				1		1	1							2	4
3YE143A	2				2	2	32	34							9	45
B						1	10	11								11
3YE144	1				1		2	2								3
3YE145			1		1	1	19	20	1			1	2		4	28
3YE146	1				1		1	1	1			1		1		4
3YE147							71	71	2			2	3		1	77
3YE148A	3				3	3	23	25	1			1	3		3	36
B	3		1		4	3	37	40					12			56
C	2				2	10	41	51	1		1	2	8		3	66
3YE149		2			2		13	13			1	1				16
3YE150	2		1		3	2	8	10								13
3YE151A							2	2	2			2			1	5
B	2	1		1	4	7	14	21	4			4	7		1	37
3YE152							4	4								4
3YE153						3	3	6							2	8
3YE154						1	9	10							5	15
3YE155	5				5	4	7	11							3	19
3YE156	4		1	2	7	1	40	41	1	1	1	3	8	1	2	62

Table D.3. Lithic inventory of Nimrod Lake survey, continued

Site Number	Bifacial Implements					Flakes			Groundstone				Cores and Misc. Reduction Flakes	Cracked Sandstone	Unmodified Lithics	Total
	PPK's	Scrapers	Bifaces	Other	Total	Mod.	Unmod.	Total	Nutting Stone	Hammer Stone	Other Ground Stone	Total				
3YE157						18	78						4	1	8	109
3YE158A	7				7	9	162						5		4	187
B	1		3		4	4	26						1	7	2	44
3YE159	2		1		3	3	8			1		1	1	2	1	19
3YE160	2		1		3		4									7
3YE161							3						1		1	5
3YE162							5						1		1	6
3YE163						1	3									4
3YE164	1				1	2	40						1			44
3YE165A	1				1	9	53						1		1	65
B	1				1	5	32						1			39
3YE166A	1	1	1		3	4	18						3			28
B	1	1	2		4	12	86						1			103
3YE167	3		1		4	5	54						5			68
3YE168A	1				1		7						1			9
B						3	75									78
3YE169	1				1											1
3YE170	1				1		11									12
3YE171							2									2
3YE172						1										1
3YE173						1	6								2	9
3YE174A	9		2		11	14	120						3	2	3	153
B	5	1	2		8	9	40						5			62
3YE175							18						2			20
3YE176	1		2		3	1	62		2			2	1			69
3YE177	4		1		5	5	53						1			64
3YE178							4									4
3YE179A	2	1		1	4	1	6			1	1	2				13

Table D.3. Lithic inventory of Nimrod Lake survey, continued

Site Number	Bifacial Implements					Flakes			Groundstone				Cores and Misc. Reduction Flakes	Cracked Sandstone	Unmodified Lithics	Total
	PPK's	Scrapers	Bifaces	Other	Total	Mod.	Unmod.	Total	Nutting Stone	Hammer Stone	Other Ground Stone	Total				
3YE179B																0
3YE180	2				2		4							5		11
3YE181	1				1											1
3YE182	3				3	1	1									5
3YE183						1	5									6
3YE184						7	51						4		2	64
3YE185						2	17						1		2	22
3YE186	1				1	1	3									5
3YE187	1				1	4	49						6		2	62
3YE188			1		1		7						1			9
3YE189							6									6
3YE190A	1		1		2	21	46						3			72
B						4	28								2	34
3YE191							4									4
3YE192	2				2	2										4
3YE193						1	6								3	10
3YE194A	3				3	11	23									
B			1		1	6	37	43						1		45
C				1	1	1	12									14
3YE195	5	1			6	7	39						2		4	58
3YE196						2	9								2	13
3YE197																0
3YE198																0
3YE199	1				1	1										2
3YE200	2				2		3									5
3YE201A	2	1			3	6	30						9			48
B						7	25									32

AD-A124 330 NIMROD LAKE AN ARCHEOLOGICAL SURVEY OF A RESERVOIR DRAWDOWN(U) ARKANSAS ARCHEOLOGICAL SURVEY FAYETTEVILLE T L LEATHERMAN 1978 RR-22 DACW03-78-M-1252 3/3

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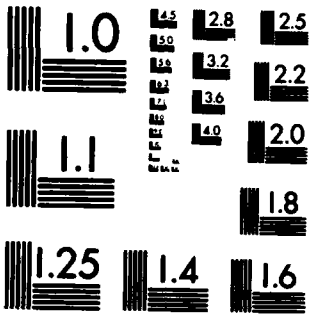

Table D.3. Lithic inventory of Nimrod Lake survey, continued

Site Number	Bifacial Implements					Flakes			Groundstone				Cores and Misc. Reduction Flakes	Cracked Sandstone	Unmodified Lithics	Total
	PPK's	Scrapers	Bifaces	Other	Total	Mod.	Unmod.	Total	Nutting Stone	Hammer Stone	Other Ground Stone	Total				
3YE202						1	17								3	21
3YE203	2				2	9	29						3			43
3YE204A	42	1	3		46	17	61		1			1	7		9	141
B	10				10	17	23								1	51
C	2				2	4	13									19
3YE205	1				1	6	27						6			40
3YE206						4	140						2		1	147
3YE207A	1				1	2	11		1			1	1		2	18
B						3	11							1	2	17
3YE208						6	34						1	1		42
3YE209	2				2	3	7									12
3YE210A	5				5	11	34		3			3	6		12	61
B						2	11		2		1	3	2		2	20
3YE211A	1		1		2	14	51		3		1	4	9		2	82
B			1		1	2	4						1			8
3YE212	4				4	2	11						2		2	21
3YE213A-1						4	3		1		1	2	4		3	16
A-2						1	4						4			9
B-1			1		1	4	5						3		2	15
C	16		1	1	18	14	22		1		1	2	1		4	61
E	14		2		16	20	65						9		11	121
3YE214	4				4	5	50						5		3	67
3YE215A	4		1		5	7	22		1			1	1		1	37
B	4		1		5	8	31		1			1	3		2	50
C	3	1	2		6	4	19						1			30
3YE216A	3	1			4	8	18						1		4	35
B	3	1			4	12	29								10	55

Table D.3. Lithic inventory of Nimrod Lake survey, continued

Site Number	Bifacial Implements					Flakes			Groundstone				Cores and Misc. Reduction Flakes	Cracked Sandstone	Unmodified Lithics	Total
	PPK's	Scrapers	Bifaces	Other	Total	Mod.	Unmod.	Total	Nutting Stone	Hammer Stone	Other Ground Stone	Total				
PE48	1				1	5	24		2			2	2			34
PE49A	13				13	4	34						8	1		60
B	15	1	1		17	15	94				1	1	16	1		144
PE50	6				6	7	61						5	7	6	92
PE51	1				1	2	10								3	16
PE52	1				1		1									2
PE53	1				1		4						1			6
PE54	4				4	2	26						2	1	3	38
PE55	2				2	1	14									17
PE56A-1	8		1		9	4	13				1	1	1		2	30
A-2	2			1	3	3	11		1			1	1		1	20
B	1				1	6	57						3			67
C	5		1		6	4	49		1		2	3	2		3	67
D	3				3	5	27		2			2	5			42
E-1	3	2	1		6	4	14						6		7	37
E-2	2		1		3	2	92		1			1	2		6	106
PE57	3				3	5	3				2	2	1		6	20
PE58	2				2	9	37			1		1	4		2	55
PE59	6				6	7	18		1			1	3		3	38
PE60A	2				2	11	35		1			1	3		2	54
B	5		1	1	7	9	26		1			1	3			41
PE61	1	1	1		3	6	27						6		8	50
PE62	1				1	7	37		1			1	12		3	61
PE63	3		3		6	3	18		1			1		1		29
PE64		2	2		4	3	15								2	24
PE65	1		1		2		19		1			1				22
PE66	1				1	3	6									10

Table D.3. Lithic inventory of Nimrod Lake survey, concluded

Site Number	Bifacial Implements					Flakes			Groundstone							
	PPK's	Scrapers	Bifaces	Other	Total	Mod.	Unmod.	Total	Nutting Stone	Hammer Stone	Other Ground Stone	Total	Cores and Misc. Reduction Flakes	Cracked Sandstone	Unmodified Lithics	Total
PE67		1			1	1	13						5		4	24
PE68	1				1	1	2									4
PE69	2	1	1		4	10	18						4		1	37
PE70	10		3		13	9	53						4	1	6	86
PE71	9		1		10	4	45		2			2	10		9	80
PE72	3		1		4	5	29									38
PE73	4		1		5	2	13									20
PE74						3	3									6
PE75A	3				3	4	14						2	3	2	28
B	4		1		5	10	51						2	1		69
PE76	1		1		2	1	14								1	18
PE77	1		1		2	4	41						1		1	49
PE78	7		2		9	7	30								5	51
PE79	1				1	4	31						1		2	39
PE80						1	10									11
PE81		1			1	5	21									27
PE82	1	1	2	1	5	4	37						4		5	55
PE83	2		1		3	13	28						6		6	56
PE84						1	1						1			3
PE85A	2				2	2	48		1			1				53
B			1		1											1
C			2		2	3	15								1	21
D	1			1	2	8	30								5	45

Table D.4. Prehistoric ceramic inventory of Nimrod Lake survey

Site	Grit Temper						Shell Temper						Bone Temper						Total
	Decorated			Undecorated			Decorated			Undecorated			Decorated			Undecorated			
	rim	body	base	rim	body	base	rim	body	base	rim	body	base	rim	body	base	rim	body	base	
3YE70	1	2																	3
3YE70B1				2	31	1													34
3YE70B2		2			17														19
3YE70C1		2			5														7
3YE70C2				2	33	3													38
3YE71					1						1								2
3YE82		1			12	1					1								15
3YE90					1														1
3YE91A				1	11														12
3YE91C					3														3
3YE103					3														3
3YE108A					1														1
3YE108B				1	4														5
3YE108C				1	4														5
3YE109A					2														2
3YE109B					1														1
3YE110					1														1
3YE127B					1														1
3YE127D				1	5														6
3YE139A				1	5														6
3YE141		1		3	21														25
3YE42				2	4														6
3YE143A					1														1
3YE143B					2														2
3YE154					11														11
3YE160					4														4
3YE165A					1														1
3YE172					1														1
3YE173					2														2
3YE178		1			1														2

Table D.4. Prehistoric ceramic inventory of Nimrod Lake survey

Site	Grit Temper						Shell Temper						Bone Temper						Total
	Decorated			Undecorated			Decorated			Undecorated			Decorated			Undecorated			
	rim	body	base	rim	body	base	rim	body	base	rim	body	base	rim	body	base	rim	body	base	
3YE179A					13														13
3YE179B				1	22	3													26
3YE180					4														4
3YE190B					1														1
3YE194B					1														1
3YE195		1			23														24
3YE198					1														1
3YE200					3														3
3YE204A	1				7												1		9
3YE205					2														2
3YE207A		1		1	31	1				1	5						1		39
3YE207B	1			1	13						26								41
3YE208					3														3
3YE210A					10	2													12
3YE210B	1	3			17	1					1								23
3YE211A				1	10	3													14
3YE211B	1				8														9
3YE212A					15	2				1	8								26
3YE212B					2									1					3
3YE213A1		2		2	15	2					4	1							26
3YE213A2		1			22	2					9								45
3YE213B1					7	2													9
3YE213B2					8						16								32
3YE213CC					3	46					8								57
3YE213D				1	17														18
3YE213E		1		2	64	1													68
3YE214					1														1
3YE216A		2		1	49	3					10								65
3YE215A1											5								5
3YE216B		1			7	1													9

Table D.4. Prehistoric ceramic inventory of Nimrod Lake survey, concluded

Site	Grit Temper						Shell Temper						Bone Temper						Total
	Decorated			Undecorated			Decorated			Undecorated			Decorated			Undecorated			
	rim	body	base	rim	body	base	rim	body	base	rim	body	base	rim	body	base	rim	body	base	
3PE48																	3		3
3PE49A					1														1
3PE49B					1														1
3PE50					18														18
3PE56A2					5														5
3PE56B					1														1
3PE56C					2							1							3
3PE56E1					9														9
3PE56E2		1			3														4
3PE57					9														9
3PE70																			
3PE78					8														8
3PE79					32														32
3PE82					8														8
3PE83				4	30	3						6							43
3PE85A					2														2
3PE85C					1														1
3PE85D					2										1				3

Table D.5. Historic artifact inventory of Nimrod Lake survey

	Glass			Ceramic					Metal			
	gs.	Bottlenecks		Stoneware		Hard White		Tile	Nails	Iron	Other	Total
		full seam	half seam	brown Albary	other	plain	transfer ware					
3YE112	1											1
3YE133	8				5	2	1			1		17
3YE152	1	1	4	2			2			2	1	13
3YE176						1						1
3YE182										1		1
3YE183	4	1	2	2	5	3	4	1				22
3YE184						2						2
3YE190B					1	2	1					4
3YE193	2				6	1		2		6		17
3YE194A/B									1	1	1	3
3YE197					2	5	1		1	3		11
3PE50						1						1
3YE213E					1							1
3PE73									1			1
3PE74						1						1
3YE215B				3								3
3YE216A				2								2
3PE85C					1	1						2

Chronological Key: Brown Albany slip = 1840-1920
half seam = 1885-1903
full seam = post 1903

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